File

STATE OF CALIFORNIA
California Regional Water Quality Control Board
Santa Ana Region

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ORDER NO. R8-2013-0001
NPDES NO. CAG018001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES) WITHIN THE SANTA ANA REGION

Dischargers described below, who have complied with the requirements for coverage under this Order, are authorized to discharge wastes, once permit coverage is effective, subject to waste discharge requirements set forth in this Order:

Dischargers	Persons discharging dairy wastes or other similar kinds of wastes from an existing dairy or related facility to waters of the United States in any manner that may affect water quality are hereinafter referred to as "Dischargers" and may obtain coverage under this Order. Persons discharging wastes from other types of animal feeding operations must obtain coverage under a separate general permit or individual waste discharge requirements. Persons discharging wastes from a proposed or newly constructed dairy or related facility must obtain coverage under individual waste discharge requirements.

This Order was adopted by the Regional Water Quality Control Board on: June 07, 2013	
This Order shall become effective on: June 07, 2013	
This Order shall expire on: June 01, 2018	

IT IS HEREBY ORDERED that this Order shall supersede Order No. R8-2007-0001 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, the Dischargers shall comply with the requirements in this Order.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 07, 2013.

Kurt V. Berchtold, Executive Officer

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I. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter the Regional Board), finds that:

A. CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOS) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

1. Section 502 of the Clean Water Act (CWA) defines CAFOs as point source discharges. All discharges of pollutants from point sources to waters of the U.S. should be regulated under an NPDES permit. 33 U.S.C. §§ 1342,1362(14). All CAFO facilities within the region are currently regulated under a General NPDES permit, Order No. R8-2007-0001, adopted by the Regional Board on September 7, 2007. Order No. R8-2007-0001 expired on September 6, 2012 and Order No. R8-2013-0001 renews the expired permit.

B. DISCHARGE INFORMATION

2. An animal feeding operation (AFO) is considered a CAFO based on either a facility's animal population or, regardless of population, if it is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. 40 CFR 122.23(4) and (6). The wastes generated by CAFOs include manure that the animals excrete, process wastewater[1] (primarily wash water from the milk barn) and storm water runoff from manured areas. Approximately 10% of the manure that a milking cow excretes each day is excreted while in the milk barn, and approximately 90% of the manure excreted from the animals is deposited in the corrals. CAFO owners/operators scrape and remove manure from the corrals generally twice per year. The average moisture content of manure when it is removed from the corrals is 33% (all of the manure numbers used in this Order refer to manure with 33% moisture content). In 2012, CAFOs removed approximately 601,000 tons of manure from their corrals in the region. This is equivalent to approximately 1,394,000 cubic yards of manure.

3. Wastes produced at CAFOs contain high levels of bacteria, biochemical oxygen demand (an indicator of biodegradable materials), ammonia, nitrate, phosphorus, and other salt compounds. Unless properly managed, these wastes could adversely impact water quality of the receiving waters (both surface and groundwaters). Surface discharges from CAFOs within the region could adversely impact water quality in the Santa Ana River and its tributaries and the San Jacinto River and its tributaries. A number of impaired waterbodies are located within these

[1] *Process wastewater means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any storm water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, or bedding.*

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watersheds[2]. As such, it is critical to regulate the discharge of wastes from all significant sources of pollutants to these waterbodies. The Regional Board, as the designated authority, has determined that all AFOs with a herd size of more than 20 cows or 50 heifers, calves, or cattle within the Santa Ana Region are a significant contributor of pollutants to waters of the U.S. As such, these facilities must be regulated under waste discharge requirements.

4. There are currently 127 dairy-related CAFOs within the Santa Ana Regional Board's jurisdiction. These CAFOs include dairies, heifer ranches and calf nurseries. As of December 31, 2012, these CAFOs contained approximately 172,000 animals [83,000 milking cows, 13,000 dry cows, 43,000 heifers (12-18 month old cows), 29,500 calves (less than 12 month old cows), and 1,500 other animals (beef cows, etc.)]. Ninety-nine (99) of these facilities (with 116,000 animals) are located in the Santa Ana River Basin and 28 of these facilities (with 56,000 animals) are located in the San Jacinto River Basin.

5. This Order applies to owners and/or operators (hereinafter Dischargers) of any existing CAFOs that discharge pollutants to waters of the U. S. within the Santa Ana Regional Board's jurisdiction.

C. ELIGIBILITY FOR COVERAGE AND NOTIFICATION REQUIREMENTS

6. Only those facilities that have coverage under Order No. R8-2007-0001 are eligible for coverage under this Order. Dischargers previously authorized to discharge wastes under Order No. R8-2007-0001 are automatically enrolled under this Order, unless they file a Notice of Termination (Attachment F) or an application to be covered under an individual order.

7. Dischargers who have submitted a Notice of Intent (NOI, Attachment C), Engineered Waste Management Plan and a Nutrient Management Plan (where applicable) to discharge wastes under Order No. R8-2007-0001, but have not received an authorization, will be covered under this Order upon receipt of the authorization letter from the Executive Officer. The Engineered Waste Management Plan and the Nutrient Management Plan should be prepared as specified under Section III.E. of this Order.

8. In case a CAFO ownership changes or a CAFO is relocated, a Notice of Termination (NOT, Attachment F) and a Notice of Intent (NOI, Attachment C) must be submitted along with an Engineered Waste Management Plan, a Nutrient Management Plan (where applicable) and the first annual fee to the Regional Board office at the following address:

   Santa Ana Regional Board - Dairy Section
   3737 Main Street, Suite 500
   Riverside, CA 92501

[2] *http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/303d.shtml*

9. A permit application package is not required for continued coverage of existing facilities unless there is a change in ownership, location of the facility or significant changes in operations. Information regarding the availability of the permit application package (NOI, Engineered Waste Management Plan and the Nutrient Management Plan) for public comments will be posted for a minimum of 30 days. These documents will be made available to interested parties upon request. If no significant comments are received, a discharge authorization letter will be issued by the Executive Officer of the Regional Board to all facilities that meet the requirements specified in this Order. If there are significant comments that cannot be resolved, the application package will be scheduled for consideration by the Regional Board. If the CAFO does not meet the requirements specified herein, individual waste discharge requirements will be developed for consideration by the Regional Board.

10. The following types of facilities are generally not required to obtain coverage under this Order. Such facilities are not authorized to discharge wastes which may affect water quality, or cause a nuisance or pollution as defined in Section 13050 of the California Water Code (Water Code).

    a. Dairies where the animal population is less than 20 (dry or milking cows).
    b. Heifer, calf, or cattle ranches where the herd size is less than 50.
    c. Persons proposing to discharge wastes from a newly constructed dairy or related facility must obtain coverage under individual waste discharge requirements.

D. TERMINATION OF COVERAGE

11. Upon ceasing operation at a facility, the Discharger shall ensure that the facility has been completely cleaned out and there is no remaining potential for a discharge of pollutants from the facility, including manure, litter and process wastewater. The standard procedures may include, but are not limited to, scraping all manure from the corral areas and containment ponds, including any contaminated soil, and filling in the containment pond(s) with clean dirt. The discharger should then submit a written Notice of Termination (NOT, Attachment F) to the Regional Board office. Once the Regional Board staff determines that the facility no longer poses a threat to water quality, the NOT will be approved.

E. CONVERSION FROM GENERAL PERMIT TO INDIVIDUAL PERMIT

12. The Executive Officer of the Regional Board or the Regional Administrator of the USEPA may require any person authorized to discharge wastes under this Order to subsequently apply for and obtain individual waste discharge requirements. Cases where individual waste discharge requirements may be required include the following:

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a. The discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;
b. New effluent limitation guidelines are promulgated for point sources covered by this General NPDES permit;
c. Changes to the Basin Plan containing requirements applicable to the regulated facilities are approved;
d. The requirements of 40 CFR 122.28(a) are not met; or
e. The discharge may adversely affect the water quality objectives of the receiving waters.

F. CHANGE OF OWNERSHIP

13. In the event of any change in control (dairy operator) or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, and a copy of the notice must be immediately forwarded to the Regional Board. The succeeding owner or operator must then submit a new NOI, an Engineered Waste Management Plan, a Nutrient Management Plan (where applicable) and the applicable filing fee to the Regional Board. If there are no substantial changes[3] to the facility operations and if the facility has a Certified Engineered Waste Management Plan, there is no need to resubmit the Engineered Waste Management Plan. If dairy biomass is applied to cropland as per a Nutrient Management Plan prepared in accordance with Order No. R8-2007-0001 and there are no substantial changes to the cropland operations, there is no need to resubmit the Nutrient Management Plan with the NOI.

G. LEGAL AUTHORITY

14. This Order is issued pursuant to Section 402 of the CWA and implementing regulations adopted by the USEPA and Chapter 5.5, Division 7 of the California Water Code (Water Code, commencing with section 13370). It shall serve as an NPDES permit for point source discharges from CAFOs. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260). USEPA has promulgated Effluent Limitation Guidelines and Standards for CAFOs that are contained in 40 CFR Section 412.

15. Regulations governing discharges from CAFOs, including dairies, are contained in Division 2, Title 27 of the Combined State Water Resources Control Board/California Department of Resources Recycling and Recovery (CalRecycle, previously Integrated Waste Management Board) AB 1220 Regulations, which became effective on July 18, 1997. Chapter 7, Subchapter 2 (Article 1) contains requirements for Confined Animal Facilities.

[3] *Substantial changes include a 20% increase in animal population, a 20% decrease in cropland acreage, or any changes in nutrient application rates that was not included in the approved Nutrient Management Plan.*

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H. LEGAL BASIS AND RATIONALE FOR REQUIREMENTS

16. The Fact Sheet (Attachment D) contains the legal basis, background information and rationale for requirements contained in this Order and is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through F are also incorporated into this Order.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

17. This Order is both an NPDES permit, issued pursuant to federal law, and waste discharge requirements (WDRs), pursuant to State law. Under Water Code Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21000-21177. Requirements for "new sources" as defined in Section 306 of the CWA are not covered by the exemption.

18. The renewal of WDRs or NPDES permits for existing facilities is exempt from CEQA requirements as per California Code of Regulations, Title 14, Section 15301. This Order is only applicable to existing facilities that are currently regulated under Order No. R8-2007-0001.

19. Food and Agricultural Code Section 33487 exempts state agencies from any requirement to prepare a CEQA document for CAFOs under the following circumstances: (1) when the dairy will be constructed and operated in accordance with the minimum standards in Chapter 5 of the Food and Agricultural Code; (2) where the applicable local agencies have completed all necessary reviews and approvals including that required by CEQA; and (3) where a permit for construction was issued by a local agency on or after the effective date of Food and Agricultural Code Section 33487 and construction has begun.

J. TECHNOLOGY-BASED EFFLUENT LIMITATIONS (TBELS)

20. CWA Section 301(b) and its implementing regulations at 40 CFR 122.44(a) require that permits include applicable TBELs and any more stringent effluent limitation necessary to meet applicable water quality standards. As such all Dischargers under this Order must meet the federal technology-based standards as per 40 CFR Section 412.31 representing the application of Best Practicable Control Technology (BPT). 40 CFR 412, Subpart C – Dairy Cows and Cattle Other Than Veal Calves contains effluent limitation guidelines for CAFOs. These requirements are incorporated into this Order.

K. WATER QUALITY-BASED EFFLUENT LIMITATIONS (WQBELS) AND TMDLS

21. CWA Section 301(b) and 40 CFR 122.44(d) require that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving waters. Where numeric water quality

criteria have not been established, 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA Section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter. 40 CFR 122.44(k)(3) allows the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible or when practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. As supported in detail in the Fact Sheet (Attachment D), the Regional Board has determined that it is infeasible to include numeric WQBELs in this Order. Therefore, this Order requires CAFOs to implement BMPs, such as developing and implementing Engineered Waste Management Plans and Nutrient Management Plans and performing focused monitoring.

22. Federal regulations [40CFR 122.44(d)(1)(vii)(B)] require inclusion of effluent limits that are "consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA." Currently there are two total maximum daily loads (TMDLs) with wasteload allocations for the CAFOs in the region. These TMDLs include: (1) the middle Santa Ana River Bacterial Indicator TMDL; and (2) Canyon Lake/Lake Elsinore Nutrient TMDL. This Order includes requirements to develop and implement control measures necessary to achieve the wasteload allocations specified in the TMDLs by the deadlines specified in the approved TMDLs.

L. WATER QUALITY CONTROL PLANS

23. The Regional Board adopted a revised Water Quality Control Plan for the Santa Ana Region (Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region. Since 1995, the Basin Plan has been amended a number of times.

24. The existing and potential beneficial uses of the various surface waters that could be impacted by the discharge of dairy wastes in the Santa Ana Region include one or more of the following:

    1. Municipal and Domestic Supply,
    2. Agricultural Supply,
    3. Industrial Service Supply,
    4. Groundwater Recharge,
    5. Water Contact Recreation,
    6. Non-contact Water Recreation,
    7. Warm Freshwater Habitat,
    8. Limited Warm Freshwater Habitat,
    9. Wildlife Habitat,

10. Rare, Threatened or Endangered Species, and
11. Spawning, Reproduction, and Development.

25. The existing and potential beneficial uses of groundwaters that could be impacted by the discharge of dairy wastes within the Santa Ana Region include one or more of the following:

    1. Municipal and Domestic Supply,
    2. Agricultural Supply,
    3. Industrial Service Supply, and
    4. Industrial Process Supply

M. NATIONAL TOXICS RULE (NTR) AND CALIFORNIA TOXICS RULE (CTR) [NOT APPLICABLE]

N. STATE IMPLEMENTATION POLICY [NOT APPLICABLE]

O. COMPLIANCE SCHEDULES AND INTERIM REQUIREMENTS

26. The Basin Plan contains schedules for achieving compliance with wasteload allocations for bacterial indicator (Middle Santa Ana River) and nutrients (Lake Elsinore and Canyon Lake watershed). This Order requires CAFOs within those watersheds to develop and implement control measures to comply with the wasteload allocations as per the time schedules specified in the approved TMDLs.

27. The Basin Plan also specifies that when the Regional Board determines that it is infeasible to achieve compliance with an effluent limitation specified to implement a new water quality objective, the Regional Board may establish a schedule for compliance in waste discharge requirements. The State Board adopted Resolution No. 2008-0025, Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits. Schedules specified in this Order are consistent with the Policy.

P. ANTIDEGRADATION POLICY

28. Federal regulations at 40 CFR Section 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's Antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal Antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in the Fact Sheet (Attachment D), the permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.

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Q. ANTI-BACKSLIDING REQUIREMENTS

29. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

R. PROVISIONS IMPLEMENTING STATE LAW

30. Provision II.D.2. implements State law only. Since this provision is not required or authorized under the CWA, violations of this provision are not subject to the enforcement remedies that are available for NPDES permit violations. Other enforcement remedies are available under the Water Code for such violations.

S. MONITORING AND REPORTING

31. Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the Water Code authorize the Regional Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement these Federal and State requirements. The Monitoring and Reporting Program is provided in Attachment B.

T. STANDARD AND SPECIAL PROVISIONS

32. Standard Provisions, which in accordance with 40 CFR Sections 122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment A. The Regional Board has also included in this Order special provisions applicable to the Dischargers. The rationale for the special provisions contained in this Order is provided in the Fact Sheet (Attachment D).

U. NOTIFICATION OF INTERESTED PARTIES

33. The Regional Board has notified the Dischargers and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment D) of this Order.

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V. CONSIDERATION OF PUBLIC COMMENT

34. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment D).

W. ALASKA RULE

35. On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

X. STRINGENCY OF REQUIREMENTS FOR INDIVIDUAL POLLUTANTS

36. This Order includes both technology and water quality-based effluent limitations. The technology-based effluent limitations are based on the USEPA's effluent limitation guidelines for this industrial category. Water quality-based effluent limitations are scientifically derived to implement the water quality objectives specified in the Basin Plan.

II. PERMIT PROVISIONS

A. DISCHARGE PROHIBITIONS

1. The discharge of wastes to land or to surface waters, including storm water conveyance systems, shall be in accordance with the provisions of this Order. All other discharges of wastes to land and surface waters are prohibited.
2. The discharge of wastes to land or to surface waters shall not cause a condition of contamination, pollution or nuisance as defined in Water Code Section 13050.
3. The discharge of wastes not generated by the dairy-related activities at the facility is prohibited except with written authorization from the Executive Officer.
4. The disposal of any mortality (dead animals) in any process wastewater system, liquid manure or other facilities within the regulated CAFO is prohibited. Mortalities shall be handled in such a way as to prevent the discharge of pollutants to waters of the State. If federal, state or local officials have declared a State of Emergency and all other disposal options have been pursued and failed, onsite disposal may be allowed provided the disposal is consistent with the "Cal/EPA Emergency Animal Disease Regulatory Guidance for Disposal and Decontamination (October 20,

2004). All dead animals shall be disposed of within three days. Records of mortality management shall be kept for five years.

5. The discharge of process wastewater to a land application area before, during or after a storm event that would result in runoff of the applied water is prohibited.

6. The discharge of wastewater to surface waters from the cropland is prohibited. Irrigation supply water that comes into contact or is blended with waste or process wastewater shall be considered wastewater under this prohibition.

7. The discharge of storm water to surface waters from a land application area where manure or process wastewater has been applied is prohibited unless the land application area has been managed consistent with an approved Nutrient Management Plan.

8. The use of manure to construct containment structures is prohibited.

9. The discharge of wastes, including manure, process wastewater and/or storm water runoff from manured areas, to property not owned or controlled by the discharger, except as authorized by this Order, is prohibited.

10. There shall be no discharge of chemicals, or other wastes that are not associated with the CAFO operations to the waste management facilities and/or the waste handling facilities.

11. Temporary waste storage areas shall be designed and constructed in a manner to prevent runoff and leachate from entering surface or groundwater.

12. Waste storage or disposal facilities shall not be built within 400 feet of a public drinking water well.

13. All confined animals shall be prohibited from entering or directly contacting any surface water. Title 27 CCR Section 22561, 40 CFR § 122.42(e).

14. The disposal of manure to any land within Chino Basin (Chino-North, Chino-East, and Chino-South Groundwater Management Zones) is prohibited. The application of manure, process wastewater, and/or storm water runoff from manured areas, on cropland outside of the Chino Basin (but within the Region) that overlie groundwater management zones lacking assimilative capacity for TDS and/or nitrate-nitrogen is also prohibited unless a plan, acceptable to the Executive Officer, is implemented that offsets the effects of such application on the underlying groundwater management zone. The Optimum Basin Management Plan, discussed in the Fact Sheet, addresses the discharge of wastes from CAFOs within the Chino Basin area. Continued implementation of the Optimum Basin Management Plan is an acceptable offset to manage CAFO waste discharges within the Chino Basin area.

15. Manure applied to non-CAFO related croplands[4] in any area within the Region that may affect a groundwater management zone that has TDS and nitrate-nitrogen assimilative capacity shall not exceed agronomic rates. In addition, the manure shall be incorporated into the soil immediately after application. For any application of manure to these croplands in excess of 12 dry tons per acre per year (or 17.5 tons per acre per year @ 33% moisture), an explanation of the type of crop and the number of times it is harvested per year shall also be included in the Annual Report (Form 3). Eastern Municipal Water District conducted a groundwater study as part of its Salinity Management Program in the San Jacinto Watershed and recommended revising nitrogen and TDS objectives for the San Jacinto Upper Pressure management zone. On October 29, 2010, the Regional Board approved this Basin Plan amendment. Approvals from the State Board, the Office of Administrative Law and the USEPA are pending. These objectives indicate that the San Jacinto Upper Pressure management zone has assimilative capacity for nitrogen and TDS. The CAFOs in the area must collaborate with Eastern Municipal Water District to implement its Salinity Management Program.

16. Manure originating from outside of the Chino Basin is prohibited from being applied to land within the Chino Basin.

17. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

18. The discharge of waste containing TDS and/or Nitrogen concentrations in excess of the underlying groundwater management zone objectives for those constituents is prohibited, unless adequately offset to the satisfaction of the Executive Officer.

B. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

1. Technology-based Effluent Limitations (TBELs)

Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged from the facility, provided all provisions of an Engineered Waste Management Plan (EWMP), approved by the Executive Officer, are fully implemented, and:

a. The production area[5] is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event; and

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[4] *For CAFO facilities that land apply manure, litter, or process wastewater to their croplands, see section III.E.5.) below for more details.*

[5] *Production area means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste confinement areas.*

b. The operations at the facility are conducted in accordance with the additional measures required by 40 CFR Section 412.37(a) and (b) with respect to inspection, corrective actions, monitoring and record keeping as specified in the Monitoring and Reporting Requirements of this Order (Attachment B).

2. Water Quality-based Effluent Limitations (WQBELs)

a. Bacterial Indicator TMDLS for the Middle Santa Ana River Watershed Waterbodies: The following wasteload allocations (WLAs) are applicable to CAFOs in the Santa Ana River Basin area. Compliance with the WLAs shall be achieved through control measures, including best management practices, as described below and in Section III.D of this Order:

i. **Dry Summer Conditions:** April 1 through October 31, compliance needs to be achieved as soon as possible, but no later than December 31, 2015. This Order prohibits the discharge of wastes to surface waters under dry weather conditions. As such, the CAFO Dischargers discharging into the middle Santa Ana River Watershed shall be immediately in compliance with the following dry weather wasteload allocations.

(a)Fecal Coliform[6] *WLA:* 5-sample/30-day logarithmic mean less than 180 organisms/100 ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30-day period.

(b) E. Coli WLA: 5-sample/30-day logarithmic mean less than 113 organisms/100 ml, and not more than 10% of the samples exceed 212 organisms/100ml for any 30-day period.

ii. **Wet Winter Conditions**: November 1 through March 31, compliance needs to be achieved as soon as possible, but no later than December 31, 2025.

(a) Fecal Coliform[7] *WLA:* 5-sample/30-day logarithmic mean less than 180 organisms/100 ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30-day period.

(b) E. Coli WLA: 5-sample/30-day logarithmic mean less than 113 organisms/100 ml, and not more than 10% of the samples exceed 212 organisms/100 ml for any 30-day period.

[6] *The fecal coliform WLA becomes ineffective upon the replacement of the REC-1 fecal coliform objectives in the Basin Plan by approved REC-1 objectives based on E. Coli.*
[7] *The fecal coliform WLA becomes ineffective upon the replacement of the REC-1 fecal coliform objectives in the Basin Plan by approved REC-1 objectives based on E. Coli.*

iii. **Interim Wet Weather Bacterial Indicator TMDL Compliance Activities:**

(a) The Dischargers in the Middle Santa Ana River Watershed shall continue to implement the approved monitoring program as specified in Resolution R8-2007-0046.

(b) In March 2008, the Dischargers in the Middle Santa Ana River Basin submitted an Agricultural Source Evaluation Plan and in April 2008, the Regional Board approved this Plan.

(c) The Dischargers in the Middle Santa Ana River Watershed implemented this Plan and submitted a final Agricultural Source Evaluation Plan report in July 2009.

(d) Based on the annual evaluation of the monitoring results and the source evaluation report, the Dischargers in the Middle Santa Ana River Watershed shall develop and submit for approval by the Regional Board or Executive Officer an Agricultural Bacterial Source Management Plan by December 31, 2014. At a minimum, this Plan should include, but not be limited to the following: (1) a description of tasks for completing a detailed evaluation of bacterial indicator sources and discharge pathways associated with CAFO operations; (2) specific steps that the Dischargers have taken or will take to achieve compliance with the CAFO wet weather wasteload allocations by December 31, 2025; (3) a description of specific best management practices that have been implemented or will be implemented to reduce the discharge of wastes containing bacteria associated with CAFO operations to surface waters; (4) a description of any improvements needed to the design, construction, operation and maintenance of waste containment facilities at CAFOs to minimize accidental discharge of wastes from waste containment facilities; (5) a description of any additional good housekeeping practices needed at CAFO facilities to minimize the discharge of any runoff, including precipitation, from the production areas to surface waters; (6) a description of specific metrics that will be used to demonstrate the effectiveness of the Plan and acceptable progress toward meeting the CAFO wasteload allocations for bacterial indicators by December 31, 2025; and (7) a schedule for completing the tasks described in the Plan.

(e) The Agricultural Bacterial Source Management Plan may be revised based upon water quality monitoring results and demonstration of effectiveness of bacterial source control measures.

(f) Within three months of approval of the Agricultural Bacterial Source Management Plan, the Dischargers in the Middle Santa Ana River

Watershed shall implement the Plan in accordance with the schedule provided in the approved Plan.

(g) By May 31 of each year, the effectiveness of the control measures shall be evaluated along with the monitoring results. If these evaluations indicate that additional control measures are needed to achieve the WLAs by December 31, 2025, the Dischargers in the Middle Santa Ana River Watershed shall include those additional control measures in the Agricultural Source Management Plan and/or in any needed revisions to this Plan. The Dischargers in the Middle Santa Ana River Watershed shall be considered to be in compliance with this provision if the TMDL Taskforce submits the annual report that includes the information specified herein.

(h) Participation in the Middle Santa Ana River Bacterial Indicator TMDL Taskforce process, including participation in the monitoring programs, special studies, and implementation of control measures developed by the Taskforce and approved by the Regional Board, shall be considered in assessing compliance with the WLAs.

b. **Nutrient TMDLs for Lake Elsinore and Canyon Lake**: The following WLAs are applicable to CAFO facilities located in the San Jacinto watershed. Compliance with these WLAs shall be achieved through control measures, including best management practices, as described below and in Section III.D of this Order. The Regional Board recognizes that the goal of the TMDL is to achieve the numeric targets in the two lakes even if the numeric wasteload allocations specified below are not met. If this goal is achieved through in-lake control measures or other means, then the beneficial uses of the lakes will be restored.

i. Total Phosphorus WLA: Compliance needs to be achieved as soon as possible, but no later than December 31, 2020.

132 kg/yr (10-year running average)

ii. Total Nitrogen WLA: Compliance needs to be achieved as soon as possible, but no later than December 31, 2020.

1,908 kg/yr (10-year running average)

(a) Participation in the TMDL taskforces including the monitoring programs, workplan development and implementation activities either by each individual Discharger or by all the Dischargers represented by a trade association or a stakeholder taskforce shall be considered in assessing compliance with the wasteload allocations in the TMDLs.

(b) The complex nature of nutrient controls for the two lakes have necessitated the need for extensive research and course corrections for the implementation plans for nutrient controls in Lake Elsinore and Canyon Lake. The activities specified below are based on research conducted so far and may require further changes as new information becomes available. To comply with the Nutrient TMDLs for Lake Elsinore and Canyon Lake:

(i) The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition, shall submit a Comprehensive Agricultural Nutrient Reduction Plan by June 30, 2013.

(ii) The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition, shall start implementing the Comprehensive Agricultural Nutrient Reduction Plan within 90 days of its approval. The Dischargers' satisfactory participation in the TMDL implementation processes with other stakeholders should satisfy this requirement.

(iii)The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce, shall conduct watershed-wide nutrient monitoring as per the approved Water Quality Monitoring Plan dated December 31, 2005. This Monitoring Plan was approved by the Regional Board on March 3, 2006 (Resolution R8-2006-0031) and amended on March 4, 2011 (Resolution No. R8-2011-0023) and October 26, 2012 (Resolution No. R8-2012-0052). The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce, shall participate in the in-lake monitoring programs that were temporarily suspended by Resolution No. R8-2012-0052, once those monitoring programs are restarted upon completion of the in-lake treatment control systems.

(iv) The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce, shall submit an annual report of the monitoring results by August 15 of each year.

(v) The Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce, shall evaluate the effectiveness of the Comprehensive Agricultural Nutrient Reduction Plan within one year of its implementation. This evaluation report may be submitted with the annual report due on August 15 of each year.

(vi) On an annual basis, the Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce shall evaluate the monitoring results along with the various implementation measures to determine their progress towards meeting the WLAs by December 31, 2020 and/or the water quality objectives in the lakes. The results of this TMDL program evaluation shall be submitted to the Regional Board with the monitoring report due on August 15 of each year.

(vii) If the program evaluation under subsection (vi), above indicates the need for additional control measures, the Dischargers in the San Jacinto watershed, in collaboration with the Western Riverside County Agricultural Coalition and the Lake Elsinore and Canyon Lake TMDL Taskforce, shall propose additional control measures and/or monitoring programs designed to meet the Lake Elsinore Canyon Lake Nutrient TMDL WLAs by December 31, 2020. This proposal is due to the Regional Board within 180 days from the date of notification by the Executive Officer.

(viii)The Dischargers' participation in the Lake Elsinore/Canyon Lake Nutrient TMDL Taskforce process, including participation in the monitoring programs, special studies, and implementation of control measures developed by these Taskforces and approved by the Regional Board, shall be considered in assessing compliance with the WLAs.

(c) All Dischargers within the Lake Elsinore and Canyon Lake watershed shall comply with the Lake Elsinore and Canyon Lake Watershed Nutrient TMDL requirements specified in Section III.D.2, below.

(d) All Dischargers within the Santa Ana watershed shall comply with the requirements specified in Section III.D.1, below for Bacterial Indicator TMDLs for the Middle Santa Ana River Watershed Waterbodies.

C. Reclamation Specifications (Not Applicable)

D. Receiving Water Limitations

1. Surface Water Limitations

a. The discharge of wastes from the regulated facilities to surface waters shall not cause or contribute to an exceedance of any applicable water quality objectives in the receiving waters specified in the Basin Plan.

b. The discharge of wastes shall not cause receiving waters to contain floating materials, foam, or scum in concentrations that cause nuisance or adversely affect beneficial uses.

c. The discharge of wastes shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.

d. The discharge of wastes shall not cause receiving waters to contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses of receiving waters.

e. The discharge of wastes shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses of receiving waters.

f. The discharge of wastes shall not cause bioaccumulation of pesticides, fungicides, or other toxic pollutants in bottom sediments or aquatic life to levels which are harmful to human health or aquatic organisms.

2. Groundwater Limitations

The discharge of wastes to the ground shall not cause or contribute to an exceedance of any applicable water quality objectives specified in the Basin Plan.

III. GENERAL PROVISIONS

(Standard Provisions are included in Attachment A of this Order).

A. PERMIT PROVISIONS

1. This Order expires on June 01, 2018. However, coverage under the Order shall continue in force and effect until a new order replaces this Order. Only those Dischargers authorized to discharge under the expiring Order are covered by the continued order. Upon reissuance of a new order, the Dischargers shall file a new application within 45 days of the effective date of the new order and obtain a new authorization to discharge from the Executive Officer.

2. The Discharger shall comply with all the requirements of this Order and the terms and conditions of the Discharge Authorization Letter. The Discharge Authorization Letter from the Executive Officer shall also, if necessary, specify any additional conditions necessary to protect the beneficial uses of the receiving waters, and shall specify the Self-Monitoring Program for the proposed discharge in accordance with this Order. The authorization to discharge may be terminated or revised by the Executive Officer at any time. Any and all discharge authorization letters, which may be issued by the Executive Officer pursuant to this Order, are incorporated by reference into this Order.

3. The Discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order.

4. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.

5. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from the facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, State, or federal law enforcement entities.

6. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, discharge limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Board by telephone (951) 782-4130 within 24 hours of having knowledge of such noncompliance that may endanger public health or the environment, and shall confirm this notification in writing within five days, unless Regional Board staff waives the written notification. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. All other noncompliance should be reported in the annual report. Also see Standard Provisions, Attachment A, V.E.

7. This Order shall serve as a general NPDES permit pursuant to Section 402 of the Federal CWA and amendments thereto, which shall become effective upon its adoption provided the Regional Administrator of the USEPA has no objection. If the Regional Administrator objects to its issuance, the Order shall not serve as a general NPDES permit until such objection is withdrawn.

8. The Executive Officer shall determine whether the proposed discharge is eligible for coverage under this order, after which, the Executive Officer may:

    a) Authorize the proposed discharge by transmitting a discharge authorization letter to the Discharger authorizing the discharge under the conditions of this Order and any other conditions consistent with this Order that are necessary to protect the beneficial uses of the receiving waters; or,

    b) Require the Discharger to obtain individual waste discharge requirements prior to any discharge to waters within the Regional Board's jurisdiction.

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9. All discharges from the facility shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other courses under their jurisdiction.

10. The discharger shall comply with all Federal, State, County and local laws and regulations pertaining to the discharge of wastes from the facility.

11. The Discharger shall comply with all requirements of this Order and, in addition, all terms, conditions, and limitations specified in the discharge authorization letter issued by the Executive Officer.

B. MONITORING AND REPORTING PROVISIONS

1. The Discharger shall comply with the Monitoring and Reporting Program requirements in Attachment B and future revisions thereto, of the Order.

C. REOPENER PROVISIONS

1. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Discharger for modification, revocation and reissuance, or termination of this Order or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such standards.

3. This Order may be reopened to address any changes in State or Federal statues, plans, policies or regulations that would affect the requirements for the discharges covered by this Order including newly adopted TMDLs.

D. SPECIAL STUDIES, TECHNICAL REPORTS AND ADDITIONAL MONITORING PROVISIONS – TMDLS AND COMPLIANCE WITH WASTELOAD ALLOCATIONS

1. The Dischargers located in the Santa Ana River Basin shall participate in the agricultural-related special studies, monitoring programs and technical reports that are required as part of implementing the Middle Santa Ana River Bacterial Indicator TMDL.

2. The Dischargers located in the San Jacinto River Basin shall participate in the agricultural-related special studies, monitoring programs and technical reports that are required as part of implementing the Canyon Lake/Lake Elsinore Nutrient TMDL.

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E. ENGINEERED WASTE MANAGEMENT PLANS AND NUTRIENT MANAGEMENT PLANS

1. All Dischargers currently regulated under the General NPDES Permit that are within the Region have designed and constructed waste containment facilities consistent with the approved Engineered Waste Management Plans (EWMPs). All Dischargers, except 13 facilities, have certified that the waste containment facilities have been constructed according to an approved EWMP. All Dischargers shall continue to comply with the USEPA and Title 27 requirements with respect to the capacity of the containment structures (see Provision 2, below) and the Regional Board requirements for the EWMPs (see Provision 3, below). The EWMPs shall be updated in accordance with Provision 3, below, for any substantial changes (see Provision 6, below) in the number of animals, waste handling procedures and/or treatment system changes or changes to the requirements for the EWMPs. Those Dischargers that apply manure, litter or process wastewater to cropland at facilities owned or controlled by them have also developed a Nutrient Management Plan (NMP) as specified in Provision 5, below. The NMP shall be updated for any changes to the cropland, including acreage, crop rotation and type of crops (see Provision 6, below). All updates shall be consistent with Provision 5, below. All updated or new EWMPs and NMPs shall be subject to public review and comments.

2. Each Discharger shall design, construct and maintain containment structures to retain all wastewater within the facility, including all process wastewater and all precipitation on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event.

3. Each Discharger, except those with an approved EWMP, shall develop and fully implement an EWMP acceptable to the Executive Officer and prepared in accordance with the Guidelines for the Development of Engineered Waste Management Plans for Concentrated Animal Feeding Operations (Dairies and Related Facilities), March 2013, or any current version issued by the Executive Officer. All structures identified in the EWMP shall be designed by a registered professional engineer, or other qualified individual. The Executive Officer is hereby authorized to make necessary revisions to the guidelines for the preparation of an EWMP. The EWMP will be made available for public review for 30 days. If there is no objection after the reviewing period, the Executive Officer will issue a letter to the Discharger approving the EWMP thus making the approved EWMP an enforceable part of the permit. The public review requirement applies only to the newly submitted EWMPs. EWMPs that have been approved by the Executive Officer prior to the effective date of this permit will not be subject to this requirement. Upon completion of construction of all structures identified in the EWMP, the Discharger shall submit a certification from the engineer or other qualified individual who prepared the EWMP that all facilities have been constructed as specified in the EWMP.

4. A copy of the approved EWMP for the facility shall be maintained on site and the person in charge of the dairy operation shall be familiar with its content. The EWMP

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shall be made available to Regional Board, State Board, USEPA staff and/or their authorized representatives (including an authorized contractor acting as their representative), upon request.

5. Dischargers who apply manure, litter, or process wastewater to croplands under their ownership or operational control shall develop and fully implement an approved site specific NMP in addition to the EWMP. All NMPs shall be prepared by a Certified Nutrient Management Planner. Existing facilities with approved NMPs need not prepare another NMP unless there is a change in ownership of the facility or substantial changes (see Provision 6, below) in the land application process. The NMP shall be prepared in accordance with 40 CFR 122.42(e)(1) and 40 CFR 412.4, and must follow the guidelines developed by Natural Resources Conservation Service (NRCS), Conservation Practices Standard 590. The application rates for dairy biomass shall be calculated in compliance with technical standards for nutrient management, as required by 40 CFR 412.4(c)(2) and NRCS Conservation Practices Standard 590. The Discharger shall also comply with the recordkeeping requirements as described in 40 CFR 412.37(c), including those specified under subsections (c)(1) to (c)(10). Prior to approval by the Executive Officer, the NMP will be made available for public review for 30 days. If there are no substantial comments after the reviewing period, the Executive Officer will issue a letter approving the NMP and authorizing the implementation of the NMP. In accordance with 40 CFR 122.23(h), when the Executive Office authorizes the discharge and approves the NMP, the terms of the approved NMP become incorporated into the Order as an enforceable part of the Order. Once the Discharger obtains authorization to discharge under this Order, they must implement the terms and conditions of the NMP as of the date of permit coverage authorization. A copy of NMP must be maintained on site and made available to Regional Board, State Board, USEPA staff and/or their authorized representatives (including an authorized contractor acting as their representative), upon request.

6. If a CAFO facility with an approved EWMP and/or a NMP undergoes substantial changes in its operations, makes changes to an EWMP, or makes changes to an NMP, the Discharger shall notify the Regional Board in writing of the changes. If, after review of the changes, the Regional Board determines that the changes are substantial, a revised EWMP and/or a revised NMP must be submitted within 30 days of the Executive Officer's written request for the revised EWMP/NMP. Changes in an NMP shall be subject to the requirements in 40 CFR 122.42(e)(6). Revised EWMP/NMPs will be available for public review for 30 days. If there are no objections after the review period, the Executive Officer will approve the EWMP/NMP. The approved EWMP and/or NMP become enforceable parts of the permit.

7. Waste Containment Facilities Construction, Operation and Maintenance Specifications:

    a. Following a storm event, the discharger shall restore the wastewater holding capacity of waste containment facilities (retention ponds) in a timely manner.

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b. Retention ponds and manured areas at CAFOs in operation on November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Facilities existing before November 27, 1984 those are protected against 100-year peak stream flows shall continue to provide such protection. New facilities (built after November 27, 1984) shall be protected from 100-year peak stream flows.

c. No containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures.

d Manure, litter, and process wastewater shall not be applied, or allowed to accumulate, closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface or ground waters.

e. Manure scraped from the corrals shall be removed from the facility within 180 days. Any manure remaining at the facility after 180 days of being scraped from the corrals is considered to be disposal of manure and is prohibited. A manifest of the manure hauled away (Form 4) shall be prepared and submitted with the annual report in accordance with Monitoring and Reporting Program (Attachment B).

f. Prior to transferring manure, litter or process wastewater to other persons, CAFOs shall provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis. The analysis provided must be consistent with the requirements of 40 CFR Section 412, and, in addition, must include analysis for constituents specified in Attachment B. The CAFO operators shall collect representative samples of manure at least once per calendar year during a corral cleaning event, analyze for nutrients (nitrate-nitrogen and phosphorus), and retain the records for five years.

g. All surface drainage from outside of the facility (such as, but not limited to, from streets or neighboring property) shall be diverted away from any manured areas unless drainage from the manured areas are fully contained on site.

h. Chemicals and other contaminants handled on-site shall not be disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.

F. SALT AND NUTRIENT MANAGEMENT PROVISIONS

1. ***San Jacinto River Basin Dischargers:*** As required under Order No. R8-2007-0001, the Dischargers in the San Jacinto River Basin developed a Final Workplan to Offset the Impacts of Dairy Process Wastewater Discharge and Manure Land Application within the San Jacinto River Basin (Workplan). The San Jacinto Watershed Integrated Regional Dairy Management Plan (IRDMP) was developed as a subset of the Workplan, to offset and/or reduce the impacts of salt and nutrient loadings to the groundwater basins in the area. The Plan identified a number of control measures and recommendations to address the impact of dairy waste discharges within the San Jacinto watershed. A number of entities are helping the CAFOs to implement the recommended control measures. A number of the proposals are being pilot-tested or are being developed and implemented by the Dischargers (see the Fact Sheet for details). The Dischargers in the San Jacinto Basin have indicated that these control measures have provided the needed offset for salt and nutrient loadings as required by Order No. R8-2007-0001. The requirements specified below should ensure continued protection of the surface and groundwater resources in the area.

   a) Within 18 months of adoption of this Order, the Dischargers in the San Jacinto area shall collect and submit to the Regional Board all groundwater monitoring data from wells within the CAFO facilities and wells that are located within a five mile radius of the CAFO facilities to confirm that the CAFO discharges have not impacted the quality of groundwaters in the area. All available historic groundwater monitoring data shall be collected. The monitoring data shall be analyzed to determine any statistically significant changes in the TDS and nitrate quality that could have been caused by discharges from the CAFO facilities.

   b) If the monitoring data analyses indicate either hotspots or impacts throughout the basin from CAFO discharges, the Dischargers shall develop and submit to the Regional Board additional control measures within 6 months of preparation of the monitoring report required under subsection a), above. The proposed control measures should include a calculation of the salt and nutrient loads from the CAFOs. The control measures shall be implemented within 6 months of approval by the Executive Officer.

   c) The Dischargers in the San Jacinto River Basin shall continue to track their waste management through the Manure Manifest System either developed by the San Jacinto Basin Resource Conservation District or Form 4 provided in Attachment C.

   d) To the extent practicable, Dischargers in the San Jacinto River Basin shall continue to implement salt and nutrient load reduction programs by: (1) reducing manure and process wastewater application to croplands; (2) reducing salt content in the source water; (3) implement on-site wastewater treatment processes; (4) consider

implementing regional wastewater treatment systems; and (5) participate in local groundwater improvement projects.

2. ***Santa Ana River Basin Dischargers:*** For Dischargers in the Santa Ana River Basin, The Optimum Basin Management Program was developed by the Chino Basin Watermaster in collaboration with other dischargers and interested parties in the Santa Ana River Basin. This is a comprehensive, long-range, water management plan for the Basin and includes recharge proposals and design and construction of desalters to address some of the high TDS groundwaters, including offsets for the CAFO discharges. Two of the desalters have been built and are currently operational. The CAFO facilities shall ensure that continued implementation of the plan is sufficient to offset any impact of waste discharges from the CAFOs within this watershed by implementing following steps.

    a. Compliance with Discharge Prohibitions II.A.18 of this Order for Dischargers overlying the Prado Basin Management Zone (PBMZ) shall be achieved in accordance with the following time schedule: There are no active dairies in the Prado Basin Management Zone. There were 14 dairies in 2007; only one dairy was left at the end of 2012. That dairy has removed all its animals from the facility and is in the process of cleaning up the site to terminate permit coverage.

    b. For discharges into other groundwater management zones in the Santa Ana River Basin, the Dischargers shall participate in the offset programs, including the Chino Basin Desalters. These Desalters are designed to remove salt and nutrients from groundwater and are considered as adequate offsets for discharges into these basins from the existing CAFOs. The Dischargers shall continue to participate in the Desalter projects. On an annual basis, the Dischargers in the Santa Ana River Basin, in collaboration with the Chino Basin Watermaster and other stakeholders, shall evaluate the efficacy of the Desalters in offsetting salt and nutrient discharges from the CAFOs to the groundwaters in the area. The Dischargers in the middle Santa Ana River Basin shall submit the annual evaluation report by January 31 of each year for the previous year. An annual evaluation report from the Chino Basin Watermaster should satisfy this requirement.

3. In the interim, manure and process wastewater may be applied in accordance with an approved NMP to cultivated cropland owned or controlled by the Discharger, at agronomic rates, and stormwater runoff from the cropland areas may be discharged in the Santa Ana River Basin and the San Jacinto River Basin provided that manure is applied in accordance with Discharge Prohibitions II.A.14 & 15, of this Order.

4. Compliance with the Effluent Limitations and Discharge Specifications II.B.2.b. of this Order shall be achieved by Dischargers within the Lake Elsinore and Canyon Lake watershed through participation in the TMDL Taskforce and by implementing

programs and policies developed by the TMDL Taskforce that are applicable to San Jacinto area CAFOs as per the time schedules approved by the Regional Board.

G. SPECIAL PROVISIONS FOR MUNICIPAL FACILITIES (Not Applicable)

H. OTHER SPECIAL PROVISIONS (Not Applicable)

IV. COMPLIANCE DETERMINATION

Compliance determination with the terms of this Order shall be based on the following:

1) Periodic inspections by Regional Board staff and/or USEPA or its authorized representatives;

2) Evaluation of the Annual Report of Animal Waste Discharge and Annual Summary Report of CAFO Storm Water Management Structure Inspections submitted according to the Monitoring and Reporting Program (Attachment B);

3) Evaluation of Workplans and other reports required for compliance with the TMDLs, salt and nutrient management; and

4) Any other information deemed necessary by the Executive Officer.

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ATTACHMENT A – STANDARD PROVISIONS

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I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the CWA and the Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or denial of a permit renewal application. [40 CFR §122.41(a)].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement. [40 CFR §122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. [40 CFR §122.41(c)].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. [40 CFR §122.41(d)].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities, systems of treatment and control mechanisms (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order and the discharge authorization letter from the Executive Officer. Proper operation and maintenance also include regular maintenance and inspection of all systems, record keeping and adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. [40 CFR §122.41(e)].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. [40 CFR §122.41(g)].

2. This Order does not authorize the commission of any act causing injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations nor guarantee the Discharger a capacity right in the receiving waters. [40 CFR §122.5(c)]

F. Inspection and Entry

The Discharger shall allow the Regional Board, State Board, USEPA and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR §122.41(i)][Water Code 133839c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR §122.41(i)(1)];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR §122.41(i)(2)];

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR §122.41(i)(3)]; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [40 CFR §122.41(i)(4)].

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. [40 CFR §122.41(m)(1)(i)].

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. [40 CFR §122.41(m)(1)(ii)].

2. Bypass not exceeding limitations - The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not

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subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5, below. [40 CFR §122.41(m)(2)].

3. Prohibition of bypass. Bypass is prohibited, and the Regional Board may take enforcement action against a Discharger for bypass, unless [40 CFR §122.41(m)(4)(i)]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR §122.41(m)(4)(i)(A)];

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR §122.41(m)(4)(i)(B)]; and

   c. The Discharger submitted notice to the Regional Board as required under Standard Provisions – Permit Compliance I.G.5 below [40 CFR §122.41(m)(4)(i)(C)].

4. The Regional Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. [40 CFR §122.41(m)(4)(ii)].

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. [40 CFR §122.41(m)(3)(i)].

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). [40 CFR §122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. [40 CFR §122.41(n)(1)].

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1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2, below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. [40 CFR §122.41(n)(2)].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR §122.41(n)(3)]:

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 CFR §122.41(n)(3)(i)];

   b. The permitted facility was, at the time, being properly operated [40 CFR §122.41(n)(3)(ii)];

   c. The discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b, below (24-hour notice) (40 CFR §122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C, above. (40 CFR §122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR §122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any order condition. [40 CFR §122.41(f)].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must obtain a new permit. [40 CFR §122.41(b)]. However, coverage under the Order shall continue in force and effect until a new order replaces this Order. Only those Dischargers authorized to discharge under

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the expiring Order are covered by the continued order. Upon reissuance of a new Order, the Dischargers shall file a new application within 45 days of the effective date of the new order and obtain a new authorization to discharge from the Executive Officer.

C. Transfers

This Order is not transferable to any person except after notice to the Regional Board and with written authorization from the Executive Officer. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. [40 CFR §122.41(l)(3)] [40 CFR §122.61].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR §122.41(j)(1)].

B. Monitoring results must be conducted according to test procedures under Part 136, unless other test procedures have been specified in this Order. [40 CFR §122.41(j)(4)] [40 CFR §122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

A. Records Retention

The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board Executive Officer at any time. [40 CFR §122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [40 CFR §122.41(j)(3)(i)];

2. The individual(s) who performed the sampling or measurements [40 CFR §122.41(j)(3)(ii)]

3. The date(s) analyses were performed [40 CFR §122.41(j)(3)(iii)];

4. The individual(s) who performed the analyses [40 CFR §122.41(j)(3)(iv)];

5. The analytical techniques or methods used [40 CFR §122.41(j)(3)(v)]; and

6. The results of such analyses [40 CFR §122.41(j)(3)(vi)].

C. Claims of confidentiality for the following information will be denied [40 CFR §122.7(b)]:

1. The name and address of any permit applicant or Discharger [40 CFR §122.7(b)(1)]; and

2. Permit applications and attachments, permits and effluent data [40 CFR §122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Board, State Board, or USEPA within a reasonable time, any information which the Regional Board, State Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to Regional Board, State Board, USEPA staff and/or their authorized representatives (including an authorized contractor acting as their representative) copies of records required to be kept by this Order. [40 CFR §122.41(h)] [Water Code 13267].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Board, State Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5, below. [40 CFR §122.41(k)].

2. All permit applications shall be signed by a general partner or the proprietor, respectively. [40 CFR §122.22(a)(2)].

3. All reports required by this Order and other information requested by the Regional Board, State Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2, above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2, above [40 CFR §122.22(b)(1)];

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of

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plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 CFR §122.22(b)(2)]; and

c. The written authorization is submitted to the Regional Board and State Board [40 CFR §122.22(b)(3)].

4. If an authorization under Standard Provisions – Reporting V.B.3, above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3, above must be submitted to the Regional Board and State Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. [40 CFR §122.22(c)].

5. Any person signing a document under Standard Provisions – Reporting V.B.2, or V.B.3, above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR §122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment B) in this Order. [40 CFR §122.22(l)(4)].

2. Monitoring results must be reported on a Self Monitoring Report (SMR) form or forms provided or specified by the Regional Board or State Board for reporting results of any surface water discharges, manure nutrient monitoring and manure use or disposal practices. [40 CFR §122.41(l)(4)(i)].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the SMR or manure reporting form specified by the Regional Board. [40 CFR §122.41(l)(4)(ii)].

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4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. [40 CFR §122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. [40 CFR §122.41(l)(5)].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger public health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR §122.41(l)(6)(i)].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR §122.41(l)(6)(ii)]:

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. [40 CFR §122.41(l)(6)(ii)(A)].

   b. Any upset that exceeds any effluent limitation in this Order. [40 CFR §122.41(l)(6)(ii)(B)].

3. The Regional Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24. hours. [40 CFR §122.41(l)(6)(iii)].

F. Planned Changes

1. The Discharger shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR §122.41(l)(1)]:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b) [40 CFR §122.41(l)(1)(i)]; or

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b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order [40 CFR §122.41(l)(1)(ii)]; or

c. The alteration or addition results in a significant change in the Discharger's manure use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved Nutrient Management Plan [40 CFR§122.41(l)(1)(iii)].

2. Any other business operations being conducted on the facility that are not related to the operation of the dairy or wastes that are imported from off-site sources must be covered under a separate individual permit.

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with the requirements of this Order. [40 CFR §122.41(l)(2)].

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E, above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. [40 CFR §122.41(l)(7)].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, State Board, or USEPA, the discharger shall promptly submit such facts or information. [40 CFR §122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

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VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial (i.e. dairies, heifer or calf ranches), mining, and silvicultural Dischargers shall notify the Regional Board as soon as they know or have reason to believe [40 CFR §122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(1)]:

   a. 100 micrograms per liter (µg/L) [40 CFR §122.42(a)(1)(i)];

   b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(1)(ii)];

   c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(1)(iii)]; or

   d. The level established by the Regional Board in accordance with 40 CFR §122.44(f) [40 CFR §122.42(a)(1)(iv)].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(2)]:

   a. 500 micrograms per liter (µg/L) [40 CFR §122.42(a)(2)(i)];

   b. 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(2)(ii)];

   c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(2)(iii)]; or

   d. The level established by the Regional Board in accordance with 40 CFR §122.44(f) [40 CFR §122.42(a)(2)(iv)].

B. Publicly-Owned Treatment Works (POTWs) (Not Applicable)

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ATTACHMENT B – MONITORING AND REPORTING PROGRAM

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ATTACHMENT B – MONITORING AND REPORTING PROGRAM

Section 122.48 (40 CFR §122.48) requires that all NPDES permits specify monitoring and reporting requirements. California Water Code Sections 13267 and 13383 also authorize the Regional Board to require technical and monitoring reports. This Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements, which implement the Federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. All monitoring data shall be maintained for at least five years and shall be made available to Regional Board, State Board, USEPA staff and/or their authorized representatives (including an authorized contractor acting as their representative), upon request.

B. All containment structures, including, but not limited to, ponds, berms, and wastewater distribution systems (pumps, pipes, and other mechanical devices) , shall be inspected at least once each week during the entire year and at least once each 24-hour period during a storm event in which rainfall exceeds 0.5 inches in 24 hours. The findings of these inspections shall be documented on CAFO Weekly Storm Water Management Structure Inspections Log Sheet (Form 1). Information documented on this form shall include:

1. An estimate of the freeboard[1] for each pond or impoundment. A marker shall be placed within each pond or impoundment to indicate the minimum capacity necessary to contain the runoff and direct precipitation from a 25-year, 24-hour rainfall event.

2. Any action taken to correct deficiencies noted as a result of facility inspections. Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction.

3. The approximate time of each storm-related discharge that results in an off-property discharge of storm water commingled with process wastewater and/or manure, along with its approximate duration.

   If sufficient space is not available on the form provided, the discharger shall provide supplemental attachment sheets, as needed.

C. The Discharger(s) shall record each manure-hauling event on the Manure Tracking Manifest (Form 4).

[1] *Freeboard of a pond or impoundment is the vertical separation between the liquid level and the lowest elevation of the containment or impoundment that allows an overflow or outflow from the pond or impoundment.*

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D. The Discharger shall retain for five years records of nutrient analysis for manure. These records will be available on request by the Regional Board, USEPA , and its authorized representatives.

II. MONITORING LOCATIONS

A representative grab sample of the discharge shall be collected for any discharge of wastes from the waste containment structures to surface waters. Each discharge event shall be sampled and the samples shall be collected within the first hour of discharge or soon thereafter.

III. INFLUENT MONITORING REQUIREMENTS (Not Applicable)

IV. EFFLUENT MONITORING REQUIREMENTS

The samples shall be analyzed for total dissolved solids (filterable residue), total coliform bacteria, E. Coli, total nitrogen, total phosphorus and total suspended solids.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS (Not Applicable)

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Land Application System Monitoring: The Discharger shall conduct inspections of wastewater distribution systems on as needed basis, at least as frequently as cited in Section I.B. Any leaks or other operational problems shall be corrected promptly. Records of the inspections and corrective actions shall be included in the annual report.

VII. RECLAMATION MONITORING REQUIREMENTS (Not Applicable)

VIII. RECEIVING WATER MONITORING REQUIREMENTS (Not Applicable)

IX. OTHER MONITORING REQUIREMENTS

Manure Nutrient Monitoring: The Dischargers shall collect a representative sample of manure, at least on an annual basis, during a corral cleaning event, and have the sample analyzed for nitrate (as nitrogen), sodium, chloride, calcium, sulfate, potassium, total phosphate, and total dissolved solids (filterable residue). Sample results shall be retained for at least five years and shall be provided to representatives of the Regional Board or USEPA upon request and the most recent manure nutrient analysis should be provided to the manure haulers.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements/Self-Monitoring Reports

1. The Discharger shall comply with Standard Provisions (Attachment A) related to monitoring, reporting, and recordkeeping.

2. At any time during the term of this Order, the State Board or the Regional Board may notify the Discharger to electronically submit Self-Monitoring Reports using the State Board's California Integrated Water Quality System (CIWQS) Program (Web site: http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit a hard copy of the reports. The CIWQS Web site will provide additional directions for self-monitoring report submittal in the event there will be service interruption for electronic submittal.

3. By January 15 of each year, the Discharger shall submit an Annual Report of all previous year activities at the facility. The Annual Report shall include the following:

    a. A cover letter that clearly identifies violations of the Order; discusses corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation;
    b. A Summary Report of Weekly Storm Water Management Structure Inspections (Form 2);
    c. Annual Report (Form 3);
    d. Sampling and analyses results of any surface discharges and manure nutrient analyses; and
    e. Manure Tracking Manifest(s) (Form 4).

4. The Discharger shall notify the Regional Board by telephone within 24 hours of any unauthorized discharge of wastes. This notification shall be followed by a written report which shall be submitted to the Regional Board within two weeks of the discharge. The written report shall contain:

    a. The approximate date and time of the discharge;
    b. The estimated flow rate and duration of the discharge;
    c. The specific type and source of the waste discharges (e.g., overflow from holding pond, rainfall runoff from manure storage areas, etc.); and
    d. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of the discharge.

    All reports shall be signed by a responsible officer or duly authorized representative of the Discharger(s) and shall be submitted under penalty of perjury.

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B. Self Monitoring Reports (SMRs) (see Section A, above)

C. Other Reports (see Section A, above)

1. Alternate Reporting Strategy

Any Discharger who participates in the Manure Manifest System developed by the San Jacinto Basin Resource Conservation District (as per the Tetra Tech, Inc. report dated November 28, 2008), needs to submit only Form 2 and any analytical results of discharges to surface waters, provided that the information required under the Manure Manifest has been submitted to the San Jacinto Basin Resource Conservation District by January 15 of each year.

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Information (Please make corrections directly on this form)
Operator's Name:
Facility Name:
Facility Address:

Instructions: Use this form to keep track of weekly visual inspections of your process wastewater and storm water containment structures. Document the findings of daily storm event inspections. List the structure items that need to be inspected below (refer to your Engineered Waste Management Plan).

Keep track of your inspections in the following table by completing one row each week when you inspect your process wastewater and storm water containment structures. Provide the following information: date of inspection, initials of the person performing the inspection, check "OK" box if no problems were found, use the "Notes" column to describe problems, if you find any, and how they were fixed, record the estimate of the wastewater containment pond(s) freeboard, fill in the "Date Corrected" column with the date when you correct the problem.

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
1						
2						
3						
4						
5						
6						
7						
8						

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
9						
10						
11						
12						
13						
14						
15						
16						
17						

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
18						
19						
20						
21						
22						
23						
24						
25						
26						

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
27						
28						
29						
30						
31						
32						
33						
34						
35						

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Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
36						
37						
38						
39						
40						
41						
42						
43						
44						

Form 1. CAFO Weekly Storm Water Management Structure Inspections Log Sheet
(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: _____

Facility Name: _____

Week	Date	Initials	OK	Notes (Note any problems found and how problems were remedied)	Waste Pond Freeboard	Date Corrected
45						
46						
47						
48						
49						
50						
51						
52						

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Form 2. Summary Report of Weekly Storm Water Management Structure Inspections (Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: January 1, 20 __ through December 31, 20 __

Facility Information (Please make corrections directly on this form)
Operator's Name
Facility Name
Facility Address

Was the CAFO Weekly Storm Water Management Structure Inspections Log Sheet completed for the entire year? Yes ☐ No ☐

If **No**, please explain why the log sheet was not completed for the entire year.

_____

_____

_____

Were water lines inspected daily? Yes ☐ No ☐

Were there any discharges from the facility during the year? Yes ☐ No ☐

If **Yes**, please provide: the date of discharge, how it was discovered (was it during a routine site inspection?), how long did the discharge last, and how it was stopped.

Date of incident	How was it discovered?	How long did it last and volume	How was it stopped?

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of person making this report (please print): _____

Title: _____

Signature: _____

Date: _____

Form 3.

ANNUAL REPORT

Regional Water Quality Control Board

Santa Ana Region

(Order No. R8-2013-0001, NPDES No. CAG018001)

Reporting Period: January 1, 20__ through December 31, 20__

Report Due Date: **January 15, 20__**

FACILITY INFORMATION (Please make any corrections directly on this form)
CAFO Operator's Name
CAFO Facility Name
Facility Address
Mailing Address
Telephone Number

ANIMAL POPULATION (Please provide the number of animals in each category)

Milking Cows _____ Dry Cows _____ Heifers _____ Calves _____

Others (specify type and number) _____

MANURE INFORMATION Units Used : Tons _____ Cubic Yards _____

Manure Produced _____ Manure Spread on Cropland at Facility_____

Manure Spread on Other Cropland_____

Manure Stockpiled on Site as of 12/31/_____ _____

Manure Hauled Away (Also provide Manure Tracking Manifests, Form 4) _____

Was Manure Amount Calculated Using the Following Factors? Yes____ No ____

1 Milking cow produces approximately 4.1 tons of manure per year

1 Dry cow produces approximately 4.1 tons of manure per year

1 Heifer produces approximately 1.5 tons of manure per year

1 Calf produces approximately 0.6 tons of manure per year

*1 ton of corral manure equals 2.32 cubic yards and 1 cubic yard of corral manure equals 0.43 tons

NUTRIENT MANAGEMENT PLAN (NMP) AND NUTRIENT ANALYSIS

NMP is Certified Yes_____ No_____

Has the most current nutrient analysis been provided to the recipient of the manure?

Yes_____ No_____

CROP GROWING ACTIVITY

Number of cropland acres where manure has been applied (Cropland is contiguous to the dairy, where manure was applied and a crop was harvested).

Cropland acres:_____ No. of plantings per year: One ___ Two ___ Three ___

Type of crops grown:

Sudan grass_____ Alfalfa_____ Winter wheat_____

Barley_____ Bermuda grass_____ corn_____ Oats_____ Turf Grass_____

Vegetables_____ Others_____

Actual crop yields_____

Manure application rates_____

Amount of manure spread on each field_____

Number of Milkings per day (Dairies only): One_____ Two_____ Three_____

COMMENTS:

CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of person making this report **(please print)**:_____

Signature:_____

Date:_____

Title:_____

Form 4.

Manure Tracking Manifest

Regional Water Quality Control Board
Santa Ana Region
Order No. R8-2013-0001, NPDES No. CAG018001

INSTRUCTIONS:

1. Complete one manifest for each hauling event and for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2. If there are multiple destinations, complete a separate form for each destination.
3. The CAFO operator must obtain the signature of the hauler upon completion of each manure hauling event.
4. The CAFO operator shall submit manure tracking manifest(s) with the Annual Report to Regional Board.

OPERATOR'S INFORMATION

CAFO Operator's Name

CAFO Facility Name

Facility Address

Mailing Address

Telephone Number

MANURE INFORMATION

Manure analyzed for nutrients Yes ☐ No ☐

Most current nutrient analysis of manure provided to the recipient of the manure[1] Yes ☐ No ☐

MANURE HAULER INFORMATION

Name and Address of Hauling Company | Phone Number:

Contact Person Name:

MANURE DESTINATION INFORMATION

Hauled to (please check):

- ☐ Composting Facility
- ☐ Regional Treatment Facility
- ☐ Croplands in Riverside County
- ☐ Croplands in San Bernardino County
- ☐ Croplands in other Counties _____

Amount removed: Tons or Cubic Yards
(Please enter the amount in the box below and circle the appropriate units)

☐

Dates Hauled:

Destination of Haul: _____

GPS Coordinates of Destination[2]
Latitude: _____
Longitude: _____

Destination Receiver of Manure: _____

Manure Quantity Delivered: _____

Approximate Acreage (If Destination is Cropland) _____

Crop(s) Grown on Cropland _____

CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: _____ Date: _____

1 *The Regional Board may ask for a copy of manure nutrient analysis.*
2 *GPS coordinates shall be provided for all destinations within the Santa Ana Region.*

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ATTACHMENT C California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF INTENT

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE WASTES FROM CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES)
(Order No. R8-2013-0001, NPDES No. CAG018001)

PERMITTEE *(Person/Agency Responsible for Discharge)*

Owner/Operator Name: _____

Mailing Address: _____
Street *City* *State* *ZIP*

Contact Person: _____ Phone (_____)_____

FACILITY (Physical Address)

Name: _____

Location: _____
Street *City* *State* *ZIP*

Contact Person: _____ Phone (_____)_____

FACILITY INFORMATION

Latitude: _____ Longitude: _____

Topographic Map of Facility ____Yes ____No

Total area (acres)_____Cropland (acres)_____Corrals (acres)_____

Disposal/Pasture (acres) _____ Number of acres contributing drainage _____

ANIMAL POPULATION *(specify number)*

Milking Cows_____ Dry Cows_____ Heifers_____

Calves_____Other (specify type) _____

MANURE, LITTER AND/OR WASTEWATER PRODUCTION AND USE

How much manure, litter, and wastewater is produced annually? _____tons _____gallons

If land applied, how many acres of land under the control of permittee are available for applying manure/litter/wastewater? _____acres

How many tons of manure or litter or gallons of wastewater produced will be transferred annually to other persons? _____tons _____gallons

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TYPE OF CONTAINMENT AND CAPACITY

Holding Ponds (gallons)_____ Evaporation Ponds (gallons)_____

Lagoons (gallons)_____ Other (specify type)_____

TYPE OF STORAGE

Anaerobic Lagoon: Total number of days _____Total capacity_____

Storage Lagoon: Total number of days _____Total capacity_____

Evaporation Pond: Total number of days _____Total capacity_____

Aboveground Storage Tanks: Total number of days _____Total capacity_____

Belowground Storage Tanks: Total number of days _____Total capacity_____

Roofed Storage Shed: Total number of days _____Total capacity_____

Concrete Pad: Total number of days _____Total capacity_____

Impervious Soil Pad: Total number of days _____Total capacity_____

Other (specify): Total number of days _____Total capacity_____

NUTRIENT MANAGEMENT PLAN (NMP)

NMP prepared _____Yes _____No NMP included with NOI ____yes ____No

If no, please explain_____

_____

NMP implemented ____Yes ____No Have copy of NMP on site ____Yes ____No

Date of last review/revision of NMP Date:_____

If not land applying, describe alternative use(s) of manure/litter or wastewater _____

_____

ENGINEERED WASTE MANAGEMENT PLAN (EWMP)

EWMP prepared _____Yes _____No EWMP certified _____yes _____No

EWMP implemented ____Yes ____No Have copy of EWMP on site ____Yes ____No

CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

SIGNATURE OF OWNER OF FACILITY SIGNATURE OF OPERATOR OF FACILITY

_____ _____

PRINT OR TYPE NAME PRINT OR TYPE NAME

_____ _____

TITLE AND DATE TITLE AND DATE

ATTACHMENT D – FACT SHEET

General Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit, NPDES NO. CAG018001 For Concentrated Animal Feeding Operations (Dairies and Related Facilities) Order No. R8-2013-0001

Table of Contents

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Attachment D – Fact Sheet

I. INTRODUCTION

This Fact Sheet provides the legal basis and the technical rationale for requirements specified in Order No. R8-2013-0001, General NPDES Permit No. CAG018001.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to the dischargers. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to the dischargers.

II. FEDERAL CLEAN WATER ACT AND CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOS)

The requirements specified in this Order are based on the federal Clean Water Act (CWA) and its implementing regulations contained in the Code of Federal Regulations (CFR), the California Water Code (Water Code) and its implementing regulations, and plans and policies adopted by the State Water Resources Control Board (State Board) and the Santa Ana Regional Water Quality Control Board (Regional Board), including the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan).

In 1972, the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program for point source discharges. Chapter 5.5, Division 7 of the California Water Code incorporates the CWA. The State Board and the nine regional water quality control boards administer the NPDES permit program in California. The NPDES program allows the permitting authority to issue a permit for the discharge of any pollutant or combination of pollutants. 33 U.S.C. § 1342(a)(1). The CWA prohibits the discharge of pollutants to surface waters. 33 U.S.C. § 1311. If a facility requests a permit, it can discharge in accordance with the permit conditions and will be treated as a discharge from a point source. 33 U.S.C. §§ 1342,1362(14).

Federal regulations define Animal Feeding Operations (AFOs) as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season. 40 CFR § 122.23(b)(1)(i). Section 502 of the CWA states that all CAFOs from which pollutants are or may be discharged are point sources, and thus are subject to NPDES permitting requirements. As such, it is appropriate to regulate CAFOs under an NPDES permit.

Federal regulations define a CAFO as any AFO that either meets a certain animal population threshold, or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. 40

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CFR 122.23(b)(4) & (6). When considering the designation of an AFO as a CAFO as a result of being a significant contributor of pollutants, the appropriate authority must consider certain factors. These factors include, in part, the location of the AFO relative to surface waters, the slope, rainfall and other factors that increase the likelihood or frequency of discharges, and the impact of the aggregate amount of waste discharged from multiple AFOs in the same geographic area. The discharge of wastes from the AFOs within the Region are to waterbodies that are tributary to the Santa Ana River or the San Jacinto River. The Regional Board, as the designated authority, has determined that it is appropriate to designate all AFOs with a herd size of more than 20 cows or 50 heifers or calves within the Region as significant sources of pollutants subject to waste discharge requirements. Therefore, the acronym "CAFO" will be used to describe all facilities regulated under Order No. R8-2013-0001.

Water Code Section 13263(i) and 40 CFR 122.28 allow the issuance of general permits to regulate discharges of wastes that meet certain criteria. Order No. R8-2013-0001 satisfies the following criteria cited in 40 CFR 122.28 and the Water Code and, as such, is being issued as a general NPDES permit:

a. Waste discharges involving the same or substantially similar types of operations;
b. Discharge the same types of wastes;
c. Require the same or similar operating conditions;
d. Require the same or similar monitoring; and
e. Are more appropriately regulated under a general permit rather than an individual permit.

All CAFO facilities within the region have been regulated under a general NPDES permit since 1994. Currently, the CAFOs are regulated under General NPDES No. CAG018001, Order No. R8-2007-0001, adopted by the Regional Board on September 7, 2007. Order No. R8-2007-0001 expired on September 6, 2012. Order No. R8-2013-0001 renews the expired General NPDES permit.

III. APPLICABLE FEDERAL AND STATE CAFO REGULATIONS

The USEPA enacted CAFO regulations in 1976, 2003, 2008, and 2012. The 1976, 2003 and the 2008 regulations were challenged in the U.S. District and/or Appellate courts. The revised CAFO regulations issued by the USEPA in 2003, 2008 and 2012 were in response to the various court decisions. On July 19, 2012, the USEPA issued its final rule revising the CAFO permit regulations. The CAFO regulations are contained in 40 CFR §§122.21, 122.23, 122.28, 122.42, 122.62 and 412.

The 2003 rule required all CAFOs to apply for an NPDES permit whether or not they discharged unless a "no potential to discharge" determination was approved by the permitting authority. The Second Circuit court vacated the 2003 rule's "duty to apply" and held that the permitting authority cannot require the CAFOs to apply for a permit based on a "potential to discharge." In this decision, the Second Circuit upheld

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USEPA's exclusion of agricultural storm water runoff from the NPDES permit requirements. This decision also indicated that the Nutrient Management Plans that were required under the 2003 rules were essentially "effluent limits" that required the permitting authority's review to determine compliance with the permit.

On November 20, 2008, the USEPA published the 2008 rule that required among other things: (1) a Nutrient Management Plan with the NPDES permit application for any application of manure and/or process wastewater to cropland. The Plan must be incorporated into the permit as enforceable effluent limitations; and (2) all CAFOs that "propose to discharge" must apply for an NPDES permit unless a voluntary certification is made by the CAFO that the facility is designed, constructed, operated and maintained to prevent any discharge. This 2008 rule essentially established a "duty to apply" liability scheme. The 2008 rule was petitioned by a number of the industry groups.

These petitions were consolidated and on March 15, 2011, the Court of Appeals for the Fifth Circuit issued its ruling regarding the 2008 rule. It held that the USEPA has no authority to require a CAFO without a discharge to apply for an NPDES permit. Furthermore, the Court also invalidated the "duty to apply" liability scheme.

On July 19, 2012, USEPA issued its final rule to revise the CAFO permit regulation. In the 2012 rule, the USEPA removed the requirement that CAFOs that "propose to discharge" must seek NPDES permit coverage. This Order implements the federal CWA, USEPA regulations, and state laws and regulations applicable to CAFOs.

This General NPDES permit does not require CAFOs that do not discharge to surface waters to seek NPDES permit coverage. However, since the CAFO operations could adversely impact surface and groundwater quality, those CAFOs that do not discharge pollutants to surface waters and do not get coverage under this General NPDES Permit must obtain individual waste discharge requirements. At the October 26, 2012 Regional Board meeting, Regional Board staff discussed the status of the dairy permit and the trade associations representing the CAFOs expressed their support for reissuance of the existing permit as a general NPDES permit.

Title 27 of the California Code of Regulations, Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1 prescribes minimum standards for discharges of animal waste at confined animal facilities to protect both surface and groundwaters. Section 22562 of Title 27 also requires CAFOs to design and construct retention ponds to retain all facility wastewater generated, together with all precipitation on, and drainage through, manured areas during a 25-year, 24-hour storm. The retention ponds are to be lined with, or underlain by, soils which contain at least 10 percent clay and not more than 10 percent gravel or artificial materials of equivalent impermeability. Title 27, Section 22562(d). In addition, there are flood protection requirements for CAFOs. Title 27, Section 22562(c).

IV. DAIRY WASTES AND THEIR IMPACTS ON WATER QUALITY

There are approximately 127 dairy related AFOs in the Santa Ana Region which are located either in the Santa Ana River Basin (99 of the facilities) or the San Jacinto River Basin (28 facilities) with approximately 172,000 animals.

The CAFO operations produce wastes that include: manure excreted by the animals, wastewater from the milk barn, litter and storm water runoff through manured areas, hereafter collectively referred to as CAFO biomass. These waste products generally contain high levels of bacteria; nutrients (including nitrogen, phosphorus, potassium and ammonia compounds); salts (total dissolved solids, TDS); hormones; and biochemical and chemical oxygen demands (indicators of decomposable materials). A study conducted by the University of California Committee of Consultants for the Central Valley Region indicates that a 1,000 cow dairy generates approximately 365,000 lbs of nitrogen and 767,000 lbs of inorganic salts per year. As the nutrients and decomposable materials from the CAFOs enter waterways, they can deplete dissolved oxygen which could adversely impact aquatic life. High bacteria levels could impact recreational activities and ammonia could cause aquatic toxicity. Bacteria, salts and nitrates in the dairy wastes could infiltrate into groundwater from waste containment facilities. In groundwater, nitrate levels can increase to unhealthy levels, which can cause Blue Baby Syndrome, a potentially fatal blood disorder, if the water is consumed. A cow can also emit 100 to 200 liters of methane per day. Dairy wastewater is generally stored in waste storage lagoons or containment structures. Bacterial decomposition of wastes in the storage lagoons also produces methane and ammonia gas.

Discharges to waters of the U.S. from the CAFOs can occur from the production area or from the land application[1] area and discharges to groundwaters can occur from waste containment structures and waste stockpiles at the facility. Proper management of wastes from CAFOs is essential to protect surface and groundwater resources of the Region. If left unregulated, these discharges of wastes from CAFOs in the Chino Basin (Chino-North, Chino-East, and Chino-South Groundwater Management Zones) have a potential to affect Chino Creek, Mill Creek and Reach 3 of the Santa Ana River, which are 303(d) listed waterbodies. These waterbodies are impacted by elevated levels of bacteria.

The Chino Basin was once considered to have the highest concentration of dairy animals in the world, with approximately 350 dairies and over 300,000 animals. During the past 10 to 15 years, however, the dairies have been steadily leaving this area. According to our most recent data available, there are currently 99 facilities in the Chino Basin with a total of 116,000 animals. Although the waste loading from the dairies has decreased significantly, historic application of manure and process wastewater to the

[1] *Land application area is any area under the control of a CAFO owner or operator where manure, bedding, or process water is applied. 40 CFR 122.23(b)(3).*

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ground in the Chino Basin has resulted in significant groundwater degradation, specifically due to high levels of total dissolved solids (TDS) and nitrate.

In addition to the CAFOs in the Chino Basin, there are 28 CAFO facilities in the San Jacinto River Basin, with a total of 56,000 animals. Wastes from CAFOs in the San Jacinto River Basin have a potential to affect the San Jacinto River, Canyon Lake and Lake Elsinore if left unregulated. Canyon Lake and Lake Elsinore are 303(d) listed water bodies; impacted by high nutrient levels. Nitrate and phosphorus from various sources, including CAFOs, is considered to be the primary cause of algae blooms in Lake Elsinore, the largest natural freshwater lake in Southern California. These algae blooms deplete oxygen in the lake, creating fish kills and other conditions that affect the recreational uses of the lake and aesthetics of the area.

Prior to 1994, Regional Board's regulatory approach was to issue individual waste discharge requirements. However, frequent changes in the herd size, location, and operators or owners of such facilities, the demand for permit rescission and issuance far exceeded the available staff resources. Therefore, in 1994, the Regional Board adopted Order No. 94-7, the first general NPDES for these facilities. Order No. 94-7 was replaced by Order No. 99-11 which was later replaced by Order No. R8-2007-0001. Order No. R8-2007-0001 expired on September 6, 2012. Adoption of Order No. R8-2013-0001 is an appropriate way to continue regulatory oversight of the CAFOs within the Region.

V. PERMIT COVERAGE/NOTIFICATION REQUIREMENTS

The purpose of this Order is to facilitate regulation of discharges from CAFOs. To obtain coverage under this Order, the discharger must submit a fully executed Notice of Intent (NOI), an Engineered Waste Management Plan (EWMP), a Nutrient Management Plan (NMP) if the facility is proposing to apply CAFO biomass to cropland owned or controlled by the Discharger, and the first annual fee. All Dischargers currently regulated under Order No. R8-2007-0001 have submitted EWMPs and NMPs (where applicable) and need to update these documents only if there is a change in the ownership of the CAFO facility or significant changes in its operations (e.g., a 20% increase in herd size or a 20% decrease in cropland acreage).

VI. DISCHARGE DESCRIPTION

(See Section IV, above)

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A. Description of Wastewater and Biosolids Treatment or Controls (Not Applicable)

B. Discharge Points and Receiving Waters

The CAFO facilities within the Region are located either within the Santa Ana River Basin or the San Jacinto River Basin. Discharges from these facilities could impact Santa Ana River and its tributaries, San Jacinto River, Canyon Lake, Lake Elsinore and the groundwater management zones within these areas.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Order No. R8-2007-0001, which this Order replaces, prohibited discharges to surface waters other than from facilities designed and maintained to contain process wastewater, including runoff and direct precipitation resulting from a 25-year, 24-hour storm event, or equivalent. In addition, Order No. R8-2007-0001 required the dischargers to develop and implement an EWMP and an NMP, where applicable. The Dischargers were also required to submit an Annual Report.

D. Compliance Summary

The Annual Reports submitted by the Dischargers indicate that the CAFOs within the Region are mostly in compliance with the permit requirements.

The Dischargers have submitted EWMPs and those who land apply CAFO biomass have also submitted their NMPs. Regional Board staff is working with 13 of the CAFOs that have not provided the certification of their EWMPs.

E. Planned Changes

Any change in ownership of the facility and changes in the herd size, treatment and containment systems and cropland acreage could trigger a need to update the EWMPs and the NMPs.

VII. APPLICABLE PLANS, POLICIES, AND REGULATIONS

A. Legal Authorities

(See Sections II and III for applicable state and federal laws and regulations)

B. California Environmental Quality Act (CEQA)

This Order is both an NPDES permit, issued pursuant to federal law, and waste discharge requirements (WDRs), pursuant to State law. This Order only regulates existing facilities that are currently regulated under the 2007 General Permit (Order No. R8-2007-0001). California Code of Regulations, Title 14, Section 15301 exempts existing facilities from CEQA requirements.

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Furthermore, the action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21000-21177, under Water Code Section 13389. Requirements for "new sources" as defined in Section 306 of the CWA are not covered by the exemption.

Food and Agricultural Code Section 33487 exempts state agencies from any requirement to prepare a CEQA document for CAFOs under the following circumstances: (1) when the dairy will be constructed and operated in accordance with the minimum standards in Chapter 5 of the Food and Agricultural Code; (2) where the applicable local agencies have completed all necessary reviews and approvals including that required by CEQA; and (3) where a permit for construction was issued by a local agency on or after the effective date of Food and Agricultural Code Section 33487 and construction has begun.

As such, the issuance of this Order complies with CEQA requirements.

C. Basin Plan

The Regional Board adopted a revised Water Quality Control Plan for the Santa Ana Region (Basin Plan) that became effective on January 24, 1995 (Resolution No. 94-1). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region. Sections I.L.21 and 22 of the Order list the designated beneficial uses of the receiving waters that could be impacted by the CAFO discharges.

On January 22, 2004, the Regional Board adopted Resolution No. R8-2004-0001, amending the existing Basin Plan for the Santa Ana River Basin. The amendment (N/TDS Basin Plan Amendment) included revised groundwater subbasin boundaries (now called groundwater management zones), revised TDS and nitrate-nitrogen quality objectives for groundwater, revised TDS and nitrogen wasteload allocations (WLAs) and changes to specific surface water objectives including revised TDS and nitrogen objectives, revised reach designations and revised beneficial use designations. This Order implements relevant provisions of the approved N/TDS Basin Plan Amendment.

As part of the update of the TDS/Nitrogen Management plan in the Basin Plan, the Chino Basin Watermaster and the Inland Empire Utilities Agency (IEUA) proposed that alternative, less stringent TDS and/or nitrate-nitrogen water quality objectives be adopted for the Chino-North and Cucamonga Groundwater Management Zones. These proposals were based on additional consideration of the factors specified in Water Code Section 13241 and the requirements of the State's antidegradation policy (State Board Resolution No. 68-16). Since the less stringent objectives would allow a lowering of water quality, the aforementioned agencies were required to demonstrate that their proposed objectives would protect beneficial uses, and that

water quality consistent with maximum benefit to the people of the state would be maintained.

Appropriate beneficial use protection/maximum benefit demonstrations were made by the Chino Basin Watermaster/Inland Empire Utilities Agency (IEUA) to justify alternative "maximum benefit" objectives for the Chino-North and Cucamonga Groundwater Management Zones. These "maximum benefit" proposals entail commitments by the agencies to implement specific projects and programs. While these agencies' efforts to develop these proposals indicate their strong interest to proceed with these commitments, unforeseen circumstances may impede or preclude progress. To address this possibility, the 2004 Basin Plan Amendment includes both the "antidegradation" and "maximum benefit" objectives for the subject waters. Fulfillment of the commitments by the agencies equates to maximum benefit, and the "maximum benefit" objectives included in the Basin Plan Amendment for these waters apply for regulatory purposes. Failure to fulfill the commitments, as determined by the Regional Board in its discretion, means that the prerequisite "maximum benefit" has not been provided and that accordingly the "antidegradation" objectives for these waters will apply. To date, these agencies have been implementing the commitments necessary to demonstrate maximum benefit, so the maximum benefit water quality objectives apply for regulatory purposes of this Order.

The application of the "maximum benefit" objectives relies on the implementation by the Chino Basin Watermaster and the IEUA of a specific program of projects and requirements, which are an integral part of the Chino Basin Optimum Basin Management Program (OBMP). The OBMP was developed by the Watermaster under the supervision of the San Bernardino County Superior Court. The OBMP is a comprehensive, long-range water management plan for the Chino Basin as a whole, including the Chino-North and Cucamonga Groundwater Management Zones. The OBMP includes the use of recycled water for basin recharge, initially in the Chino-North Groundwater Management Zone. The OBMP also includes the capture of increased quantities of high quality storm water runoff, recharge of imported water when its TDS concentrations are low, improvement of water supply by desalting poor quality groundwater, and enhanced wastewater pollutant source control programs. The OBMP maps a strategy that will provide for enhanced yield for the Chino Basin and seeks to provide reliable water supplies for development expected to occur within the Basin. The OBMP also includes the implementation of management activities that would result in the hydraulic isolation of Chino Basin groundwater from the Orange County Management Zone, thus insuring the protection of downstream beneficial uses and water quality. Waste discharges from CAFOs in the Chino Basin have been factored into the OBMP.

D. National Toxics Rule (NTR) and California Toxics Rule (CTR). (Not Applicable)

E. State Implementation Policy. (Not Applicable)

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F. Alaska Rule

(See Section I.W.35 of the Order)

G. Antidegradation Policy

Federal regulations at 40 CFR Section 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings.

The federal antidegradation policy as set forth in 40 CFR 131.12 and the state's antidegradation policy as set forth in State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California" are applicable to NPDES permitting process, including permit renewals. The federal policy is only applicable to surface water quality, protects existing beneficial uses, includes special provisions for waters designated as an "outstanding natural resource" and establishes baseline water quality as the best water quality that existed since the adoption of the policy in 1975. Whereas the State policy is more inclusive: it is applicable to both surface and groundwaters; incorporates the federal policy, protects existing and reasonable potential beneficial uses and establishes the baseline water quality as the best water quality that existed since 1968 unless subsequent lowering was due to regulatory action consistent with Resolution No. 68-16. The state has developed guidance for the implementation of its policy in the Administrative Procedures Manual, APU Number 90-004[2] and in a February 16, 1995 Questions and Answers document. The USEPA has provided guidance through its "Questions and Answers on Antidegradation[3]" and Guidance on implementing the Antidegradation Provisions of 40 CFR 131.12[4]". The State Board also published an October 7, 1987 legal memorandum, "Federal Antidegradation Policy[5]". The following antidegradation analysis is based on these regulations and guidance documents.

An antidegradation analysis is required if the proposed action (in this case renewal of the NPDES permit) causes a lowering of water quality in "high quality" receiving waters. "High quality waters" are those where the baseline water quality[6] is better than the prescribed water quality objective.

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[2] *http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/apu_90_004.pdf*
[3] *Water Quality Standards Handbook, Second Draft, USEPA, June 1989*
[4] *All these documents are available at: http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/apu_90_004.pdf*
[5] *Available at: http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/apu_90_004.pdf (Some of the State Board decisions related to antidegradation is also available at this website.)*
[6] *Baseline quality is defined as the best quality of the receiving water that has existed since 1968.*

Based on the water quality objectives and the existing water quality, there are three tiers to be considered with respect to water quality objectives and existing water quality in applying federal antidegradation principles:

1. Tier I: Existing water quality is lower than the water quality objectives;

2. Tier II: Where the baseline water quality[7] is better than the water quality objectives (high quality waters); and

3. Tier III: Specially designated as "Outstanding National Resource Waters" (there are no Tier 3 waters within the Santa Ana Region; Lake Tahoe and Mono Lake are the two Tier III waterbodies in California).

For Tier I (where the existing water quality is lower that the water quality objectives) or Tier III (outstanding national resource waters) waterbodies, if the proposed discharge causes a lowering of the existing water quality, that discharge should be prohibited.

For Tier II (high quality waters, where the baseline water quality[8] is better than the prescribed water quality objective), any lowering of water quality has to be consistent with the maximum benefit to the people of the state.

Generally a lowering of water quality is triggered by:

1. New discharges;
2. Expansion of existing facilities;
3. Reduction in the level of treatment for an existing discharge;
4. Relocation of outfalls; and/or
5. Substantial increases in mass emissions of pollutants.

For high quality waters, if a lowering of the baseline water quality[9] would occur, then antidegradation requirements must be met. Resolution 68-16 establishes a two-step process to comply with the policy. In the first step, an antidegradation analysis should demonstrate: (1) beneficial uses would continue to be protected; (2) the established water quality objectives would be met; (3) any lowering of water quality would be consistent with maximum benefit to the people of California. In the second step, any discharges to high quality waters must implement best practicable treatment or control. Best practicable treatment or control means levels that can be achieved using best efforts and reasonable control methods.

The proposed Order does not permit new discharges; the level of waste treatment required under the proposed Order is not any less stringent than the existing Order; the outfalls are not being relocated; and the Order does not authorize any increases

[7] *Baseline quality is defined as the best quality of the receiving water that has existed since 1968.*
[8] *Baseline quality is defined as the best quality of the receiving water that has existed since 1968.*
[9] *Baseline quality is defined as the best quality of the receiving water that has existed since 1968.*

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in mass emissions of pollutants. In fact, there is approximately a 10% reduction in the mass emissions from the previously permitted discharges.

This Order covers only existing facilities. Although these facilities may change ownership and the herd size may vary, the overall waste load is not increasing. The waste load has been steadily decreasing as these operators relocate their facilities outside of the Region. It is anticipated that this trend will continue. The proposed Order merely renews the general NPDES permit for existing dairies within the Santa Ana Region. It is not applicable to any new facilities. Order No. R8-2007-0001, the existing NPDES permit for the CAFOs in the Region, regulated 168 CAFO facilities with a total animal population of 251,000. Upon renewal of the NPDES permit, the number of CAFOs will be reduced to 127 and the total animal population will be reduced to 172,000. Any new discharges that will result in additional waste loads will not be able to seek coverage under this general permit. Those discharges will need to be addressed under an individual permit and an appropriate antidegradation analysis may need to be conducted at that time.

A full antidegradation analysis may not be necessary in this case for the following reasons.

1. The permit is only applicable to existing facilities. There is no reason to believe that existing water quality will be lowered due to the proposed action, namely renewal of an existing NPDES permit for a reduced number of existing facilities. There is a substantial reduction in the number of animals and consequently in the mass emissions of pollutants. As such, the discharges from the existing CAFOs are not expected to lower water quality in the receiving waters as there is a reduction in the mass loading of pollutants. According to APU 90-004, "if the Regional Board has no reason to believe that existing water quality will be reduced due to the proposed action, no antidegradation analysis is required." (APU 90-004, Page 2).

2. With respect to surface waters, a discharge to surface waters is allowed only in case of severe storm events (25-year, 24-hour storm or higher intensity storms). Therefore, any reduction in water quality from such a discharge will be temporary and will not result in any long-term deleterious effects on water quality as the discharges will cease after the storm event. (APU 90-004, Page 2, Item 2). No antidegradation analysis is required.

3. The CAFOs regulated by this Order are located either within the upper Santa Ana Basin (Chino Basin) or the San Jacinto Watershed. During the adoption of the water quality objectives for some of the groundwater management zones within these basins, a maximum benefit analysis was conducted. Table 5-3 in the Regional Board's Basin Plan lists the water bodies in the Region with a comparison of the Water Quality Objectives and the current ambient water quality of those water bodies. Table 1 below, is a summary of the data presented in Table 5-3 of the Basin Plan. The maximum benefit objectives include

implementation strategies. The Chino Basin Optimum Basin Management Program is a comprehensive plan to address water quality problems from various types of discharges into the basin. This Plan considers all discharges and offset programs to prevent water quality degradation and/or to restore water quality. As such, a separate analysis is not necessary during this permit renewal process. (APU 90-004, Page 2, Item 4)

The CAFOs regulated by.this Order are located within the following groundwater management zones (see Table 1, below):
Table 1 indicates that approximately 83% of the dairies in the region are located within a groundwater management zone for which a complete "maximum benefit analysis", including antidegradation analysis, has been completed. The Chino Basin Optimum Basin Management Program includes specific programs and projects that the Chino Basin Watermaster and the Inland Empire Utilities Agency are required to implement. These programs are being implemented by these agencies. The Optimum Basin Management Program also considered waste discharges from the CAFOs in Chino Basin. As such a separate antidegradation analysis is not required for waste discharges from these CAFO facilities.

Regional Board staff has been informed that the one dairy in the Prado Groundwater Management Zone (see Table 1) has removed all the animals from the facility and is conducting final cleanup of the site for terminating permit coverage.

Table 1
Location of Dairies and the Respective Groundwater Management Zones

Groundwater Management Zone	Number of Dairies	Max Benefit?	High Quality Water?
San Jacinto Upper Pressure	10	Yes[10]	No
San Jacinto Lower Pressure	3	No	No
Lakeview/Hemet North	11	No	No
Menifee	3	No	No
Elsinore	1	No	No
Chino North	96	Yes	Yes for TDS. No for NO^3-N
Chino south	1	No	No

[10] *The Regional Board approved the Maximum Benefit Analysis for this groundwater management zone; other approvals are pending for this Analysis.*

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Chino East	1	No	No
Prado Basin (Wetland)	1[11]	No	No
Arlington	1	No	No

(The table above only identifies high quality waters that are listed in the Basin Plan.)

The dairies that are located within other groundwater management zones are prohibited from discharging wastes into those basins that would lower the water quality unless all discharges of waste exceeding the water quality objective are offset by an approved offset program.

There are a number of operating and proposed offset programs to address salt and nutrient problems in the groundwaters of the region. In the Chino Basin area, there are two desalters operated by the Chino Basin Desalter Authority. The Chino Basin Desalter Authority is a Joint Exercise of Powers Agency formed between Jurupa Community Services District, the Santa Ana River Water Company, the Cities of Chino, Chino Hills, Norco and Ontario, Western Municipal Water District and the Inland Empire Utilities Agency. The Chino Desalters pump groundwater from lower Chino Basin, purify it through reverse osmosis or ion exchange processes, and distribute the product water to member agencies. The brine wastes from the treatment processes are discharged into a regional brine line. Chino Desalter I pumps groundwater from 14 wells and has a treatment capacity of 14.2 million gallons per day. Chino Desalter II pumps water from 8 wells and has a capacity of 10 million gallons per day.

The Arlington Desalter pumps and treats groundwater from the Arlington Groundwater Management Zone.

Eastern Municipal Water District (Eastern) operates two desalters in the San Jacinto watershed: (1) Perris I; and (2) Menifee, with a combined capacity of 8 million gallons per day. Eastern is also proposing to construct another desalter, Perris II, with a design capacity of 5.4 million gallons per day.

The CAFO facilities within the Chino Basin area, represented by the Chino Basin Overlying Agricultural Pool, are signatories to an agreement: "Agreement Regarding an Alternative Water Supply Source for the Replenishment Obligation of the Chino Basin Desalter"[12]. This agreement mandates salt offset requirements on the Overlying Agricultural Pool members. On behalf of the CAFO operators in the San Jacinto Basin, the Western Riverside County Agriculture Coalition has submitted a

[11] *Preparing to cease operations at the site.*
[12] *Agreement Regarding an Alternative Water Supply Source for the Replenishment Obligation of the Chino Basin Desalter (7/10/1996). This is an agreement between the Regional Board, The Chino Basin Watermaster, the Chino Basin Appropriative Pool, the Chino Basin Overlying (Agricultural) Pool and the Chino Basin (Non-Agricultural)Pool.*

Dairy Salt Offset Proposal to Eastern Municipal Water District[13]. The proposed Order requires the Dischargers to participate in the offset programs for any discharge of wastes in excess of the water quality objectives to these basins.

The Regional Board considers these desalters as acceptable offset projects for waste discharges to the various groundwater management zones where the CAFO facilities are located.

In step 2 of the antidegradation analysis, we must consider best practicable treatment or control (BPTC) of the discharge necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State. In considering BPTC, costs for the treatment or control should be considered. The analysis must consider the proposed method to existing proven technology; evaluate performance data, and compare alternative methods of treatment or control. The Regional Board must also consider USEPA promulgated best available technology economically achievable (BAT). There are no USEPA promulgated BAT for groundwater protection for the CAFOs.

Let us consider the waste streams from CAFOs, treatment and control measures and their impacts on the receiving waters.

Land Application: The proposed Order requires the Dischargers to develop and implement a Nutrient Management Plan for any land application of the CAFO biomass consistent with the federal regulations. All CAFO facilities in the region that are land applying biomass are implementing approved Nutrient Management Plans. The Dischargers are participating in research projects that could further minimize any impacts from forage crops. A Forage Crop Irrigation Demonstration Project[14] that was conducted in the San Jacinto watershed indicated that further improvements could be made in water conservation, fertilizer use, and crop yield, through modern monitoring and application technologies. As new information becomes available, more and more CAFO facilities are implementing new technologies to reduce any adverse environmental impacts. If land application is conducted in accordance with the Nutrient Management Plan and the requirements specified in this Order, the discharges should not cause any degradation of ground or surface waters.

Discharges to Surface Waters: The CAFO facilities to be regulated under the proposed Order are existing facilities. These facilities were required under the previous orders to develop and implement an Engineered Waste Management Plan, consistent with the USEPA regulations. All the CAFOs in the region have developed, and the Executive Officer has approved, these plans. Consistent with these plans, the CAFOs have designed waste containment structures to retain all wastewater within the facility, including all process wastewater and all precipitation

[13] *Dairy Salt Offset Proposal to EMWD, by the Western Riverside County Agriculture Coalition (by Pat Boldt, WRCAC Executive Director)*
[14] *A Forage Crop Irrigation Demonstration Project, San Jacinto Basin Resource Conservation District, Agreement No. 06SF350186, June 30, 2008*

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on, and drainage through, manured areas resulting from rainfall up to and including a 25-year, 24-hour rainfall event. Any discharge to surface waters from these containment structures is going to be infrequent and for short intervals. Any reduction in water quality from such a discharge will be temporary and will not result in any long-term deleterious effects on water quality as the discharges will cease after the storm event. As such, an antidegradation analysis is not required for such discharges.

Waste Containment Structures and Discharges to Groundwater: Most waste containment facilities at the CAFOs are unlined earthen ponds. It is reasonable to assume that some of the waste constituents, such as salts and nutrients, from the waste containment structures are likely to percolate through the soil into groundwater. The actual impacts could vary significantly based on total solids concentration, soil texture (pore size), depth to groundwater, climatic conditions, and hydraulic head. A lot of research work has been done to determine the impact of waste containment structures on groundwater quality. A limited study conducted by one of the dairies in the region concluded that there is minimal impacts from dairy waste ponds on groundwater quality due attenuation of waste constituents as it passes through the soil column[15]. Other studies indicate significant impacts from newly constructed ponds and fewer impacts from older ponds. For older ponds, this is due to the fact that there is self-sealing of the ponds. Research suggests that at least a partial seal, consisting of settled solids, a microbial layer, or a combination of both, limits leakage from ponds[16]. There is disagreement, however, on seal efficacy and whether the leakage is a threat to groundwater quality.

The proposed Order requires the Dischargers to continue to maintain and properly operate the existing waste containment structures. One option to ensure groundwater protection from these waste ponds is to fully line these ponds with impermeable liners, such as high density polyethylene liners (HDPE) or clay liners. Regional Board staff got cost estimates for projects within the region. Approximately ten years ago, NRDC sued Glenn Gorzeman Dairy and entered into a settlement agreement for lining its ponds. According to information provided by Mr. Gorzeman to Board staff, the total cost of the liner installation was approximately $200,000. Mr. Gorzeman indicated that due to the financial burden from this requirement, the dairy could not continue in business. The dairy discontinued its operations within two to three years of lining the ponds. Western United Dairymen indicated that the approximate cost of HDPE liners today is $100,000 to $200,000 (depending upon the size of the ponds) and the cost of cleaning the existing ponds and lining them would be from $100,000 to $150,000. The total cost of retrofitting the existing ponds with liners (or installing new ponds with liners) would be from $200,000 to $350,000. A more comprehensive cost estimate of liners was conducted by Washington State University in, "The Economics of Dairy Nutrient Management" (Liu, Q., K. J. Myers Collins, and C.R. Shumway, 2003, Report No. EB1947E). The dairies are currently

[15] *Scott Brothers Dairy,*
[16] *Effects of Leakage from Four Dairy Waste Storage Ponds on Ground Water Quality, Final Report, Washington State Department of Ecology, Publication No. 90-109, June 1994*

under financial distress due to low price for dairy products. The added cost of such a regulatory requirement would force a large number of dairies to discontinue their operations. This would have other financial implications such as: loss of local jobs, increased price for dairy products, energy and environmental concerns related to long distance hauling of dairy products and loss of tax for local municipalities.

For reasons explained above, the Discharger participation in the offset programs should be considered as best practicable controls under the circumstances. The dairies are also implementing other control measures such as: (1) reduced application of manure and process wastewater to cropland; (2) better control of source water; and (3) minimization of wastewater production. These controls are being implemented and carefully monitored to ensure water quality protection.

The Chino Basin Watermaster, the Inland Empire Utilities Agency, Eastern Municipal Water District, Western Municipal Water District and other water purveyors and stakeholders in the region conduct an intensive and regular monitoring of the groundwater management zones indicated in Table 1, above, and other groundwater management zones within the region. These are watershed-based comprehensive monitoring programs. During the triennial review of the Basin Plan, all the monitoring information that is generated is considered to determine water quality trends. These triennial reviews include a comprehensive review of all monitoring data using sophisticated computer modeling programs. The implementation plan in the Basin Plan includes required actions by various entities to enhance and/or maintain water quality in the region. The triennial review also considers the existing control measures and evaluates the need for any additional control measures to ensure continued protection of water quality consistent with the adopted water quality objectives. These monitoring programs, control measures and continued evaluation of the effectiveness of these programs should ensure protection of ground and surface water quality in the region.

The monitoring programs, control measures and offset programs described above should ensure that any degradation of high quality waters is consistent with the antidegradation policies and that there is no degradation of other groundwater management zones and any degradation of surface waters will be temporary and will not result in any long-term deleterious effects.

A technical report, "Addressing Nitrate in California's Drinking Water" was submitted to the Legislature in February 2013. The report was based on a study conducted by the University of California, Davis with a focus on Tulare Lake Basin and Salinas Valley Groundwater. The report describes recommendations to address nitrate in groundwater. The Santa Ana Regional Water Quality Control Board has been implementing a number of the recommendations. One of the recommendations (Recommendation 6) in this Report is for the Water Boards to define and identify nitrate high-risk areas in order to prioritize regulatory oversight and assistance efforts in these areas. The Santa Ana Regional Board has been implementing such

a program. The proposed Order includes monitoring and reporting programs designed to continue such identification and remedial activities.

As discussed above, the discharges covered by this Order are not permitted to adversely affect water quality and therefore are consistent with the antidegradation provisions of 40 CFR 131.12 and State Board Resolution No. 68-16.

H. Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l) prohibit backsliding in NPDES permits. Federal regulations limit the circumstances under which modified or reissued NPDES permits may set less stringent effluent limitations than required by previous permits. 40 CFR §§122.44(1), 122.62. The Water Quality Act of 1987 includes provisions intended to clarify the Clean Water Act's anti-backsliding requirements. Clean Water Act §402(o), 33 U.S.C. *§1342(0).*

The anti-backsliding provisions generally prohibit relaxation of effluent limitations previously established on the basis of best professional judgment. CWA §402(o)(J); 33 U.S.C. §1342(o)(l). But the prohibition does not apply if any of five listed exceptions is applicable. CWA §402(o)(2), 33 U.S.C. *§1342(o)(2).* These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. As described below, all effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

The Dischargers in the Prado Basin Management Zone were required to demonstrate that the Chino Basin Optimum Basin Management Program addressed the discharges from the CAFOs. The Chino Basin Optimum Basin Management Program includes specific programs and projects that the Chino Basin Watermaster and the Inland Empire Utilities Agency are required to implement in collaboration with other entities. These programs are being implemented by these agencies. The 2007 order required the Dischargers to develop and submit a plan. There were 14 CAFOs located in this area at the time the 2007 Order was adopted. These CAFOs developed and submitted a plan as required under the 2007 Order; however, there are no more active dairies in this area (the last dairy removed all the animals from the facility and is currently undergoing cleanup). As such no further requirements are specified for the Prado Basin Management Zone.

Order No. R8-2007-0001 prohibited the discharge of wastes from the CAFOs containing TDS and/or nitrogen concentrations in excess of the underlying groundwater management zone objectives for those constituents unless adequately offset to the satisfaction of the Executive Officer. The CAFO dischargers, in collaboration with other stakeholders in the area, have implemented salt and nutrient offset programs and other control measures consistent with the 2007 Permit requirements. This Order requires the Dischargers to continue to implement those

programs and to participate in the monitoring programs to ensure that the control measures that are being implemented are protective of water quality objectives. These requirements are fully explained in Section VIII of the Fact Sheet and they are at least as stringent as the 2007 Permit requirements. As such, the provisions in the 2013 Permit are consistent with the anti-backsliding requirements.

I. Impaired Water Bodies on CWA 303(d) List and TMDL Implementation

The CAFO facilities within the Region are located either in the Santa Ana River or the San Jacinto River watersheds. Waste discharges from the CAFOs have a potential to impact the Santa Ana River, Reach 3, Chino Creek, Cucamonga Creek/Mill Creek, Lake Elsinore and Canyon Lake, which are listed as impaired, under Section 303(d) of the CWA. The Santa Ana River, Reach 3, is impaired due to pathogens (bacteria); Chino Creek and Cucamonga/Mill Creek are impaired due to pathogens and nutrients; Lake Elsinore is impaired due to nutrients, and toxic constituents; and Canyon Lake is impaired due to pathogens and nutrients.

Federal regulations require that a total maximum daily load (TMDL) be established for 303(d) listed waterbodies for each pollutant of concern. The Regional Board adopted TMDLs for indicator bacteria for Middle Santa Ana River Watershed and nutrient TMDLs for Canyon Lake/Lake Elsinore. Federal regulation requires NPDES permits to include effluent limits that are "consistent with the assumptions and requirements of any available wasteload allocation (WLA) for the discharge." 40 CFR 122.44(d)(1)(vii)(B). The following is a detailed discussion of the WLAs and TMDLs and how this Order implements the approved TMDLs.

Pursuant to 40 CFR 122.44(k)(3), best management practices are the tools used to implement the TMDLs in this Order. The tasks identified below are based on the TMDL implementation plans. These tasks were identified during the development of the TMDLs as necessary steps to meet the WLAs specified in the TMDLs by the deadlines specified in the TMDLs.

1. Middle Santa Ana River Watershed Bacterial Indicator TMDLs

Pursuant to the Middle Santa Ana River Watershed Bacterial Indicator TMDLs (Resolution No. R8-2005-0001), the following WLAs apply to CAFO facilities in the Middle Santa Ana River Watershed that drain, directly or indirectly, to Chino Creek, Cucamonga/Mill Creek and/or the Santa Ana River. The allocations apply to these CAFO facilities as a group.

a. Dry Summer Conditions: April 1 through October 31, compliance needs to be achieved as soon as possible, but no later than December 31, 2015.

1). Fecal Coliform WLA[17]

[17] *The fecal coliform WLA becomes ineffective upon the replacement of the REC1 fecal coliform objectives in the Basin Plan by approved REC1 objectives based on E. Coli.*

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5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.

2) *E. Coli* WLA
5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

These WLAs are applicable to dry weather conditions. The Order prohibits any discharge of wastes to surface waters during dry weather conditions. Federal regulations at 40 CFR 122.47(a)(1) state, "Any schedules for compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA." As such, the Order requires immediate compliance with the above WLAs.

b. Wet Winter Conditions: November 1 through March 31, compliance needs to be achieved as soon as possible, but no later than December 31, 2025.

1) Fecal Coliform WLA[18]
5–sample/30–day Logarithmic Mean less than 180 organisms/ 100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.

2) *E. Coli* WLA
5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

The Order includes specific implementation activities, including source investigation, source controls, monitoring requirements, and annual progress reports. Since the final compliance date is beyond the expiration date of this Permit, these interim measures are designed to meet the WLAs by the schedules specified in the TMDLs. In addition to the CAFOs, there are other stakeholders who are collaborating in the implementation of this TMDL. A number of these tasks are collaborative efforts of all stakeholders.

c. TMDL Monitoring Requirements and Control Measures

1) Watershed-wide Bacterial Indicator TMDL Water Quality Monitoring Program:

[18] *The fecal coliform WLA becomes ineffective upon the replacement of the REC1 fecal coliform objectives in the Basin Plan by approved REC1 objectives based on E. Coli.*

Pursuant to Task 3 of the Middle Santa Ana River Watershed Bacterial Indicator TMDLs, CAFO facilities were required to propose a watershed-wide monitoring program that will provide data necessary to review and update the Middle Santa Ana River Bacterial Indicator TMDLs by November 30, 2007. Data to be collected and analyzed were to be used to determine compliance with the TMDLs and WLAs for bacterial indicators.

On behalf of specific dischargers named in the Bacterial Indicator TMDLs, including CAFO operators, the middle Santa Ana River TMDL Task Force submitted a monitoring program for Regional Board consideration. The Regional Board approved the proposed monitoring program on June 29, 2007 (Resolution No. R8-2007-0046). The Taskforce continues to implement this approved bacterial indicator TMDL monitoring program. The Order requires the Dischargers to continue their participation in all activities related to the Middle Santa Ana River Watershed Bacterial Indicator TMDL implementation.

2) Agricultural/CAFO Discharges

Pursuant to Task 5 of the Middle Santa Ana River Watershed Bacterial Indicator TMDLs, CAFO facilities were required to develop an Agricultural Source Evaluation Plan (AGSEP) for bacteria specific to CAFOs by November 30, 2007. These plans were to include steps needed to identify specific activities, operations, and processes that contribute bacterial indicators to Middle Santa Ana River Watershed waterbodies with a schedule for completion of each of the steps identified.

Irrigated agricultural operators and CAFO operators submitted the final AGSEP in March 2008. Regional Board approved the AGSEP in April 2008. The dischargers started implementing and monitoring of AGSEP in the winter of 2009 and the final AGSEP report was submitted in July 2009. Implementation of the plan included a wet weather monitoring program that was also completed in 2009.

The agricultural dischargers are required to develop and implement an Agricultural Bacteria Source Management Plan under Task 5.2. In October 2012, Regional Board staff completed the task of identifying non-CAFO agricultural operators. The CAFO facilities continue to cooperate in the TMDL Taskforce activities related to the Middle Santa Ana River Bacterial Indicator TMDL including the watershed wide monitoring program since 2007.

A Scope of Work for the Agricultural Bacteria Source Management Plan has been developed and will be presented in spring of 2013 for funding. This Plan may be revised based on the monitoring results and an evaluation of the effectiveness of various bacteria source control measures. The CAFO/agricultural stakeholders expect to finalize the Plan by the end of 2014.

The CAFO Dischargers in the middle Santa Ana River Watershed are required to submit interim reports that include an evaluation of their bacteria source control measures and progress towards meeting the WLAs. This report may be prepared and submitted in collaboration with the TMDL Taskforce.

2. Lake Elsinore and Canyon Lake Watershed – Nutrient TMDLs

Pursuant to the Lake Elsinore and Canyon Lake Nutrient TMDLs (Resolution No. R8-2004-0037), the following WLAs apply to CAFO facilities in the San Jacinto River watershed that drain, directly and indirectly, to San Jacinto River, Salt Creek and/or Canyon Lake. The allocations apply to these CAFO facilities as a group.

a. **Total Phosphorous WLA**: Compliance needs to be achieved as soon as possible, but no later than December 31, 2020.

132 kg/yr (10-year running average)

b. **Total Nitrogen WLA**: Compliance needs to be achieved as soon as possible, but no later than December 31, 2020.

1,908 kg/yr (10-year running average)

c. **TMDL Monitoring Requirements**

1. Nutrient TMDL Water Quality Monitoring Program

Pursuant to Task 4 of the Lake Elsinore/Canyon Lake Nutrient TMDLs, (Resolution No. R8-2004-0037), CAFO facilities were required to develop and implement a watershed-wide, Canyon Lake in-lake and Lake Elsinore in-lake nutrient monitoring program to develop data necessary to review and update the Nutrient TMDLs. Data so developed could also be used for determination of compliance with the TMDLs and WLAs for nitrogen and phosphorus.

On behalf of specific dischargers named in the Nutrient TMDLs including CAFO operators, the Lake Elsinore and San Jacinto Watershed Authority submitted a monitoring program for Regional Board consideration. The Regional Board approved the proposed monitoring program on March 3, 2006 (Resolution No. R8-2006-0031) and was later modified in March 2011 (Resolution No. R8-2011-0023) and October 2012 (Resolution No. R8-2012-0052). This Order requires the CAFO operators, in collaboration with other stakeholders, to continue to implement the updated Nutrient TMDL monitoring program.

2. Agricultural/CAFO Discharges – Nutrient Reduction Plan

   Pursuant to Task 5 of the Lake Elsinore/Canyon Lake Nutrient TMDLs, CAFO facilities were required to develop Agricultural Nutrient Management Plan (AgNMP) specific to CAFOs by September 30, 2007. These plans were to include steps needed to identify nutrient sources and to develop nutrient reduction strategies, including time schedules for implementation.

   A coalition of CAFO operators and farmers in the San Jacinto River Basin have formed the Western Riverside County Agricultural Coalition (WRCAC). WRCAC submitted a plan for development of Agricultural Nutrient Management Plan (AgNMP) for Regional Board consideration. The Regional Board approved the proposed plan in November 2007 (Resolution No. R8-2007-0083). Draft AgNMP was submitted in December 2011 for Regional Board comments. Regional Board provided comments in May 2012. Final AgNMP was due on July 21, 2012. Because the stakeholders conducted additional model analysis to identify appropriate nutrient control measures, an extension to the AgNMP was granted to WRCAC. In January 2013, the Municipal Separate Storm Sewer System (MS4) permittees, in collaboration with other non-agricultural stakeholders, have submitted a revised final Comprehensive Nutrient Reduction Plan. The final AgNMP is expected to be complete within three months of completion of the Comprehensive Nutrient Reduction Plan.

3. Lake Elsinore In-Lake Sediment Nutrient Reduction Plan

   Pursuant to Task 9 of the Lake Elsinore/Canyon Lake Nutrient TMDLs, CAFO facilities were required to develop a proposed plan and schedule for in-lake sediment nutrient reduction for Lake Elsinore by March 31, 2007. The proposed plan was to include an evaluation of the applicability of various in-lake treatment technologies to prevent the release of nutrients from lake sediments to support development of a long-term strategy for control of nutrients from the sediment. The submittal was also to contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that were to be implemented.

   This task has been completed and approved by the Regional Board in November 2007 (Resolution No. R8-2007-0083).

4. Canyon Lake In-Lake Sediment Treatment Evaluation

   Pursuant to Task 10 of the Lake Elsinore/Canyon Lake Nutrient TMDLs, CAFO facilities were required to develop a proposed plan for evaluating in-lake sediment nutrient treatment strategies for Canyon Lake by March 31, 2007. The proposed plan was to include an evaluation of the applicability of various in-lake treatment technologies to prevent the release of nutrients from lake sediments in

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order to develop a long-term strategy for control of nutrients from the sediment. The submittal was also to contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that are implemented.

This task has been completed through a Proposition 50 grant obtained by the San Jacinto River Watershed Council. The final report was submitted to the Regional Board on August 3, 2007. Draft Canyon Lake sediment reduction plan was submitted to the Regional Board in December 2011 (as part of Comprehensive Nutrient Reduction Plan (CNRP)[19] and AgNMP submittal). Regional Board provided comments on CNRP and AgNMP in March 2012 and May 2012, respectively. Final revised CNRP has been submitted in Jan 2013[20] and the final AgNMP is expected to be complete by April 2013.

5. Canyon Lake and Lake Elsinore in-lake Model Updates

   Pursuant to Task 11 of the Lake Elsinore/Canyon Lake Nutrient TMDLs, CAFO facilities were required to develop a proposal and schedule for updating the existing Lake Elsinore/San Jacinto River Nutrient Watershed Model and the Canyon Lake and Lake Elsinore in-lake models by March 31, 2007. The plan and schedule was to consider additional data and information generated from the respective TMDL monitoring programs. In order to facilitate any needed update of the numeric targets and/or the TMDLs/WLAs, the proposed schedule was to take into consideration the Regional Board's triennial review schedule.

   This plan was approved by Regional Board in November 2007 (Resolution No. R8-2007-0083). A Model update was submitted in August 2011.

6. Other Lake Elsinore/Canyon Lake TMDL Activities

   The CAFO operators in the San Jacinto watershed are pursuing a number of other options and conducting pilot studies to determine the effectiveness of those control measures, including waste to energy projects. If the pilot projects prove successful, some of these projects could be implemented to address any adverse impacts from CAFO discharges to surface and groundwaters, including compliance with the wasteload allocations.

J. Other Plans, Polices and Regulations (Not Applicable)

VIII. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

Wastes from CAFOs contain high concentrations of salts (total dissolved solids and nitrates). These wastes originate from the excretion of manure in corrals and milk barns. Wash water that is discharged from the milk barn as a result of milk barn and

[19] *The Riverside County stormwater co-permittees have submitted for Regional Water Board approval, a Comprehensive Nutrient Reduction Plan (CNRP) that provides a plan and a schedule for how the co-permittees will achieve compliance with the Lake Elsinore/Canyon Lake Nutrient TMDLs and WLA. The AgNMP was developed in coordination with the CNRP.*

[20] *http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/elsinore_tmdl.shtml*

cow cleaning operations contains approximately 10 percent of the daily manure excreted from a cow. Wash water is flushed from the milk barn, generally into on-site wastewater containment ponds. Also, rainfall runoff that comes in contact with manure in the corrals carries manure from the corrals into the wastewater containment ponds.

Previous studies conducted by the Regional Board have shown that cow manure produced in the Region contains approximately 160 pounds of salt per (dry) ton of manure (110 pounds of salt per ton of manure @ 33% moisture). In addition, the Regional Board's 1990 report, "Dairies and Their Relationship to Water Quality Impacts in the Chino Basin[21]", (1990 RB Report) showed that the use of manure as a fertilizer results in two to four times more salt reaching groundwater (up to 10 times more non-nitrate salts) than the use of non-manure commercial fertilizers. For this reason, it is vital to make sure that all application of manure and process wastewater to land is regulated, so they will not adversely impact the quality of groundwater and surface water in the Region.

The 1990 RB Report mostly dealt with dairies in the Chino Basin area. However, the recommendations for the dairy regulatory program in that report are equally applicable to dairies in the San Jacinto watershed. Most elements of the dairy regulatory program recommendations in the Report have been implemented through the 1994 (Order No. 94-7); 1999 (Order No. 99-11) and 2007 (Order No. R8-2007-0001) general NPDES permits issued to the dairy facilities within the region. The recommendations in the 1990 RB Report include the following:

1. Prohibit the discharge of dairy wastes to land unless an acceptable offset program is developed and implemented to offset the impacts of salt and nutrient discharges. (Offset programs have been developed and the CAFOs are participating in those programs.)
2. Control the discharge of dairy wastes to surface waters by requiring the CAFOs to properly design, construct, operate and maintain waste containment structures that are designed to contain a 25-year, 24-hour storm runoff along with process wastewater. (Staff developed requirements for the design of Engineered Waste Management Plans. All CAFOs in the region have developed and implemented Engineered Waste Management Plans. Staff also developed a Weekly Inspection Log that the CAFOs are required to complete and submit to the Regional Board with the annual report.)
3. Monitor the impact of dairy waste discharges on surface and groundwaters. (The CAFOs are participating in comprehensive monitoring programs to determine the impacts of their discharges on surface and groundwaters.)
4. Regulate land application at agronomic rates. (All CAFOs that apply dairy biomass to land have developed and implemented Nutrient Management Plans. Staff developed a tracking system to track manure application, Form 3.)
5. Track manure management. (Staff developed a Manure Tacking Manifest and an Annual Report Form to collect information about manure management and overall dairy operations.)

[21] *http://www.waterboards.ca.gov/santaana/water_issues/programs/dairies/docs/chino_dairies.pdf*

6. Encourage Innovative approaches to dairy waste management. (Regional Board staff has helped the dairy industry to obtain grants for research projects to better manage their waste products.)

The proposed Order requires the CAFOs to continue their participation in the salt and nutrient offset programs, in the monitoring programs, and to manage storm water and process wastewater in accordance with the requirements of their approved Engineered Waste Management Plans, and land application in accordance with the approved Nutrient Management Plans. In addition, there are requirements to comply with CAFO wasteload allocations.

Provisions II. A. 14 & 15 in the proposed Order prohibits the discharge of dairy biomass unless an offset program to offset the impacts of salt and nutrient discharges is implemented. In accordance with the requirements in the 2007 Permit, the Dischargers, in collaboration with other stakeholders in the area, have developed and implemented offset programs.

Salt and nutrient management in dairy biomass (manure, litter, bedding, and process wastewater) continues to be a major challenge for dairy waste management. The Chino Basin Optimum Basin Management Program addresses salt and nutrient management programs in the Chino Basin, where 78% of the CAFOs are located. The offset programs in the Chino Basin have been implemented and appear to be working well.

In the San Jacinto Basin, Eastern Municipal Water District has two operating desalters to offset salt and nutrient loading to this basin and an additional one is proposed. A number of studies have been completed in the area to evaluate options for salt and nutrient management in the basin and to develop comprehensive management programs. The Dischargers in the San Jacinto area, in collaboration with the San Jacinto Resource Conservation District, developed a "Final Workplan to Offset the Impacts of Dairy Process Wastewater Discharge and Manure Land Application within the San Jacinto River Basin" (Final Workplan). The San Jacinto Watershed Integrated Regional Dairy Management Plan (San Jacinto Plan) was developed as a subset of this Final Workplan. The Final Workplan and the San Jacinto Plan were developed to assist dairy operators in the San Jacinto watershed in their efforts to implement management practices necessary to help solve groundwater, surface water, air quality, TMDL and salt and nutrient offsets to meet regulatory requirements. These Plans recognize a number of control practices that each dairy facility should be able to implement in addition to participating in local groundwater improvement projects. The USDA-ARS Salinity Laboratory[22] conducted a pilot nutrient management project on a San Jacinto dairy (Transport and Fate of Nutrients and Indicator Microorganisms at a Dairy Lagoon Water Application Site by Scott Bradford, March 2011) to investigate the efficacy of implementing an NMP that included applying dairy wastewater to cropland. The study demonstrated that with carefully controlled water application and selection of appropriate crops, very little leaching of the salts occurred below the root zone.

[22] *http://nepis.epa.gov/Adobe/PDF/P100DOTV.pdf*

The 1990 RB Report referenced above needs to be updated as more information becomes available regarding salt and nutrient contents in manure and their uptake by plants.

Extensive computer modeling studies on TDS and nitrate have been conducted to determine acceptable salt loading rates to groundwater from various sources, including CAFOs. These studies are the basis of the TDS and nitrogen management plan presented in the 1995 Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) and its most recent amendment (Regional Board Resolution No. R8-2004-0001, hereinafter referred to as the Basin Plan Amendment). The State Board approved the Basin Plan Amendment on September 30, 2004. The groundwater components of the amendment became effective upon approval by the Office of Administrative Law (OAL) on December 23, 2004. The USEPA approved the surface water standards and related provisions of the Amendment on June 20, 2007. The Basin Plan Amendment incorporates an updated TDS and Nitrogen Management Plan for the Santa Ana Region, which includes revised groundwater subbasin boundaries (referred to as groundwater management zones), revised TDS and nitrate-nitrogen quality objectives for groundwater, revised TDS and nitrogen WLAs and changes to specific surface waters; including revised reach designations, revised TDS and nitrogen objectives and modifications to beneficial use designations.

The Eastern Municipal Water District developed a Salt Management Plan for the San Jacinto Watershed and requested the Regional Board to revise the groundwater objectives for the San Jacinto Upper Pressure Management Zone based on a maximum benefit analysis. On October 29, 2010 the Regional Board approved a Basin Plan amendment (Resolution No. R8-2010-0039) to accommodate this request. On April 23, 2012, the Office of Administrative Law approved this Basin Plan amendment.

As indicated above, the Regional Board is actively involved in managing the TDS and nitrogen issues in the region and the stakeholders are active participants in these efforts.

The previously adopted general waste discharge requirements (Orders No. 99-11 and R8-2007-0001) included three significant changes from the Regional Board's prior CAFO regulatory program. First, they prohibited the disposal of corral manure anywhere in the Region and also prohibited the use of corral manure as a fertilizer in any groundwater subbasin lacking assimilative capacity for salts, including the Chino Basin, thereby prohibiting the application of any corral manure in the Chino Basin for any reason (previously disposal of manure was limited to 4.4 tons/acre on disposal land, and use of corral manure as a fertilizer on cropland was limited to 17.6 tons/acre).

Second, corral manure was required to be hauled from the facility within 180 days of being removed from the corrals, thereby preventing the long-term accumulation of

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manure stockpiles on-site (before, some facilities were increasingly stockpiling manure on-site rather than hauling it away). Third, CAFOs were required to develop and implement engineered waste management plans (prior to the adoption of these permits comprehensive waste management containment structure design, construction or operation plans for CAFOs did not exist).

As required under the 2007 permit (R8-2007-0001), the Dischargers have developed and implemented EWMPs that are consistent with federal and state regulations [40 CFR 122.23(b)(7), 40 CFR 122.23(b)(8), 412.2(d) and 412.2(h); and Title 27, California Code of Regulations, Section 22562]. In addition, they have also developed NMPs (where applicable) and participated in activities of the taskforces organized to collaboratively implement the TMDLs. These taskforces have developed and implemented a number of monitoring programs and other plans.

This Order requires the Dischargers to develop additional plans and control measures to comprehensively address any impacts of their discharges to surface and groundwaters, including salt and nutrient management and implementation of TMDLs.

Chino Basin (Chino-North, Chino-East, and Chino-South Groundwater Management Zones)

Seventy eight percent of the CAFOs in the Region are located in the Chino Basin. Based on data collected from the 2011 CAFO annual reports, approximately 645,000 tons of manure were removed from the corrals in the Chino Basin. Of this, approximately 50,000 tons (8%) were stockpiled on site, 136,000 tons (21%) were hauled out of the Region, and 459,000 tons (71%) were disbursed inside the Region (315,000 tons were applied to cropland, 115,000 tons were sent to composting facilities, and 29,000 tons were hauled to San Jacinto Basin).

The Chino Basin desalter program is a key feature of the salt management strategy that includes the Optimum Basin Management Plan (OBMP). It is integrated into the OBMP along with other groundwater management activities (enhanced recharge, plume management, monitoring, etc.) to assure water quality enhancement, yield management, hydraulic control, and the maximum beneficial use of the Chino Basin groundwater. Waste discharges (including those from CAFOs) in the Chino Basin have been addressed in this integrated plan. The desalter capacity and groundwater extraction well locations have been established to assure that the total salt removal from the Chino Basin is in sufficient quantity to mitigate all the salt added through the use of recycled water, ongoing discharges (including those from CAFOs), and legacy sources. Currently, there are two desalters in operation in the Chino Basin (Chino I and Chino II).

Currently, there is one dairy each in the Chino-South Groundwater Management Zone and the Chino-East Groundwater Management Zone. Since the operation of the hydraulic control wells has reversed the gradient of the Chino-South and Chino-East Groundwater Management Zones to drain towards the Chino-North Groundwater

Management Zone, these discharges are being intercepted by these wells, and thus hydraulic control is achieved. Since waste discharges from CAFOs within the Chino Basin have been addressed in the OBMP, this order does not restrict discharges to land from these facilities, as long as the Chino Basin Watermaster and IEUA are continuing their efforts of implementing the commitments to meet the max benefit water quality objectives in the Basin Plan Amendment.

Prado Basin Management Zone (PBMZ)

Order No. R8-2007-0001 required the CAFO operators to demonstrate by September 2008 that CAFO discharges were addressed by the OBMP facilities and programs. Further, in case the CAFO operators that could not demonstrate that CAFO discharges are addressed by OBMP facilities and programs, they were to formulate and implement an acceptable offset or cease the discharge of wastes in the PBMZ within five years.

CAFO operators in the PBMZ determined that CAFO discharges were not covered under the OBMP facilities and programs. Consequently, they submitted a conceptual workplan to offset the impact of their discharges (March 2009) and the final Work Plan with a proposed time schedule (November 2009).

At the time of adoption of Order No. R8-2007-0001, 14 dairies were located in the PBMZ. However, during the past 5 years, 13 dairies moved out of the PBMZ. The one dairy that was still operating within the PBMZ, removed all its animals from the facility during 2012 and is in the process of cleaning up the facility to terminate permit coverage.

San Jacinto River Basin

Historically, manure has been used to supplement the use of commercial fertilizer on agricultural fields in the San Jacinto River Basin. When the Regional Board prohibited the disposal of corral manure anywhere in the Region and prohibited the use of corral manure as a fertilizer in the Chino Basin, most of the manure produced in the Chino Basin was then hauled to the San Jacinto River Basin for use as fertilizer. Currently, it is estimated that there are about 77,000 acres of land under cultivation in the San Jacinto River Basin.

Based upon data collected from the 2011 CAFO annual reports, approximately 203,000 tons of manure was removed from the corrals in the San Jacinto River Basin. Of this, approximately 22,000 tons (11%) was stockpiled on site, 41,000 tons (20%) was hauled out of the Region, and 140,000 tons (69%) was applied on croplands within the Region. In addition, approximately 29,000 tons of manure was hauled from Chino Basin to the San Jacinto River Basin.

For the San Jacinto River Basin, 69% of the corral manure removed by the CAFOs remained in this basin. A total of 169,000 tons (140,000 tons from the San Jacinto

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River Basin plus 29,000 tons from the Chino Basin) of manure was applied as fertilizer in the San Jacinto River Basin. This represents a loading of approximately 9295[23] tons of salt to the groundwater management zones in the San Jacinto River Basin during 2011.

Basin Plan Amendment (Resolution No. R8-2004-0001) indicates that all of the groundwater management zones in the San Jacinto River Basin, with the exception of the Canyon Groundwater Management Zone, lack assimilative capacity for additional salt inputs. In addition, all of the groundwater management zones within the San Jacinto River Basin, with the exception of the Canyon and Perris North Groundwater Management Zones lack assimilative capacity for additional nitrate inputs. Consequently, discharges of manure, wash water, and storm water to land must be prohibited unless Total Dissolved Solids (TDS) and nitrogen loadings from these discharges are adequately offset. Order No. R8-2007-0001, in part, prohibited the discharge of wastes containing TDS and/or nitrogen concentrations in excess of the underlying groundwater management zone objectives, unless the discharge of waste is adequately offset to the satisfaction of the Executive Officer.

The Regional Board recognized that it was not feasible for this waste discharge prohibition to be implemented immediately. Therefore, a time schedule for compliance was provided in Order No. R8-2007-0001 that required full compliance with the prohibition by September 6, 2012. Order No. R8-2007-0001 required that the CAFO operators submit a Work Plan to offset the impacts of discharge of process wastewater and land application of manure within the San Jacinto River Basin.

On behalf of CAFO operators and farmers, San Jacinto Basin Resource Conservation District (SJBRCD) submitted a conceptual Work Plan on January 2, 2008. The final Work Plan and proposed time schedule was submitted by SJBRCD for Regional Board consideration on September 18, 2008. The Regional Board approved the final Work Plan and the proposed time schedule on October 29, 2008.

The final Work Plan and its supplement (the San Jacinto Watershed Integrated Regional Dairy Management Plan, IRDMP) provided a number of recommendations to control and/or offset the discharge of salts and nutrients to the San Jacinto River Basin. Appendix F of the IRDMP contains a report for "Salt Offset Options for the San Jacinto River Basin Dairies" (Salt Offset Options Report). Collectively, the Work Plan, the IRDMP, and the Salt Offset Options Report identify numerous options to address the salt and nutrient loadings into the San Jacinto Basin. While some of these options may not directly pertain to salt and nutrient off-sets, they could be considered as elements of an overall Region-wide plan for water quality improvements. The following recommendations have been implemented:

[23] *Based on 169,000 tons of manure (110 pounds of salt per ton of manure @ 33% moisture contents).*

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1. Conducted a pilot study for a Comprehensive Nutrient Management Plan (CNMP) at a San Jacinto dairy facility.
2. Conducted a demonstration project of a Vibratory Shear Enhanced Processing (VESP) system at a San Jacinto dairy facility.
3. Conducted a partial watershed monitoring program for run-off to Mystic Lake.
4. Conducted a Canyon Lake and Lake Elsinore in-lake nutrient monitoring program.
5. Developed a Lake Elsinore in-lake nutrient reduction plan.
6. Conducted a Canyon Lake in-lake sediment treatment evaluation.
7. Developed a CAFO Ag-Nutrient Management Plan to identify nutrient sources and to develop nutrient reduction strategies.
8. Conducted a watershed-wide sampling program for dairy wastewater and manure.
9. Conducted a watershed-wide sampling and analysis program to determine dairy salt loads and to develop a dairy salt load report.
10. Developed and implemented a Nutrient Management Plan (NMP) for specific dairy sites that land apply manure to cropland (9 dairy sites).
11. Developed an Integrated Regional Dairy Management Plan (IRDMP) addressing water quality issues related to dairy wastes including salts, nutrients, and pathogens.
12. Developed a Manure Manifest Tracking System for the San Jacinto Basin for local and imported manure.
13. Developed a manure composting program that could be considered on a regional scale or on a site specific scale to stabilize raw manure for cropland application and/or export out of the San Jacinto Basin.
14. Developed a program to encourage manure export from the Basin.
15. Started negotiations with other stakeholders such as Eastern Municipal Water District (EMWD) to reduce salts in dairy source water.
16. Initiated a full scale demonstration project for conversion of manure waste to diesel fuel at a San Jacinto dairy.

The Salt Offset Options Report states that manure applied to cropland as a fertilizer contributes more than 90% of each dairy's salt and nutrient loads. A limited study at one of the San Jacinto CAFOs by the University of California Riverside, Salinity Laboratory indicated that a properly managed and implemented Nutrient Management Plan can significantly limit salt to the root zone with little leaching to groundwater. Nine of the San Jacinto dairy facilities are now implementing Nutrient Management Plans for croplands. For manure applied to non-dairy related cropland, farmers in the San Jacinto Basin are required to implement an Agricultural Nutrient Management Plan. In addition, there is an increase in the manure export from some of the dairies to locations outside the region.

To monitor dairy salt and nitrate loading, a dairy sampling program for dairy wastewater and manure has been implemented. In conjunction with this sampling program, a watershed-wide sampling and analysis program for dairy salt loads has been implemented to develop a dairy salt load report.

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The IRDMP is considered to be a working document for the San Jacinto CAFOs. There continues to be additional studies and pilot projects to demonstrate other feasible alternatives to address waste loads in addition to the sixteen control measures (listed above) that have been already implemented. With the implementation of these options and natural recharge, the Groundwater Management Zones have the potential to reduce the concentrations of salt and nutrients.

The Dischargers in the San Jacinto Basin have indicated that the above control measures have reduced the salt and nutrient loadings to the Basin and no further offsets might be needed. The proposed Order includes requirements for the Dischargers to collect and analyze groundwater monitoring data to confirm that discharges from the CAFO facilities have not impacted groundwater quality in the San Jacinto Basin. If these analyses indicate statistically significant impacts from the CAFO discharges, additional control measures must be developed and implemented.

The proposed Order requires the CAFO's in the area to continue to implement the control measures and evaluate their effectiveness in addressing salt and nutrient problems and to propose additional measures, if needed.

As previously noted, Canyon Lake and Lake Elsinore are on the 303(d) list of impaired water bodies due, in part, to the effects of excessive amounts of nutrients, including nitrogen and phosphorous. The TMDL adopted by the Regional Board and approved by USEPA requires the reduction of nutrients from all sources in the watershed, including CAFOs. The Nutrient TMDLs specify CAFO WLAs for both nitrogen and phosphorus. The Dischargers are working with the TMDL taskforces to help implement the TMDLs.

There are a number of other research projects and pilot studies, including a waste-to-energy project, that are being conducted or proposed. The requirements specified in the proposed Order are consistent with the state and federal laws and regulations pertaining to CAFOs. Based on the results of the pilot studies and the research work, these requirements may be revised.

A. Discharge Prohibitions

1. The discharge of wastes to land or to surface waters, including storm water conveyance systems, shall be in accordance with the provisions of this Order. All other discharges of wastes to land and surface waters are prohibited (40 CFR 412.37(a)).

2. The discharge of wastes to land or to surface waters shall not cause a condition of contamination, pollution or nuisance as defined in Water Code Section 13050.

3. The discharge of wastes not generated by the dairy-related activities at the facility is prohibited except with written authorization from the Executive Officer.

4. The disposal of any mortality (dead animals) in any process wastewater system, liquid manure or other facilities within the regulated CAFO is prohibited (40 CFR 412.37(a)(4)). Mortalities shall be handled in such a way as to prevent the discharge of pollutants to waters of the State. If federal, state or local officials have declared a State of Emergency and all other disposal options have been pursued and failed, onsite disposal may be allowed provided the disposal is consistent with the "Cal/EPA Emergency Animal Disease Regulatory Guidance for Disposal and Decontamination (October 20, 2004). All dead animals shall be disposed of within three days. Records of mortality management shall be kept for five years (40 CFR 122.42(e)(1)(ii) and 412.37(b)(4)).

5. The discharge of process wastewater to a land application area before, during or after a storm event that would result in runoff of the applied water is prohibited.

6. The discharge of wastewater to surface waters from the cropland is prohibited. Irrigation supply water that comes into contact or is blended with waste or process wastewater shall be considered wastewater under this prohibition.

7. The discharge of storm water to surface waters from a land application area where manure or process wastewater has been applied is prohibited unless the land application area has been managed consistent with an approved Nutrient Management Plan.

8. The use of manure to construct containment structures is prohibited.

9. The discharge of wastes, including manure, process wastewater and/or storm water runoff from manured areas, to property not owned or controlled by the discharger, except as authorized by this Order, is prohibited (40 CFR 412.31(a)).

10. There shall be no discharge of chemicals, or other wastes that are not associated with the CAFO operations to the waste management facilities and/or the waste handling facilities (40 CFR 122.42(e)(1)(v)).

11. Temporary waste storage areas shall be designed and constructed in a manner to prevent runoff and leachate from entering surface or groundwater.

12. Waste storage or disposal facilities shall not be built within 400 feet of a public drinking water well.

13. All confined animals shall be prohibited from entering or directly contacting any surface water (Title 27 CCR Section 22561, 40 CFR § 122.42(e)(iv)).

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14. The disposal of manure to land within Chino Basin (Chino-North, Chino-East, and Chino-South Groundwater Management Zones) is prohibited. The application of manure, process wastewater, and/or storm water runoff from manured areas, on cropland outside of the Chino Basin that overlie groundwater management zones lacking assimilative capacity for TDS and/or nitrate-nitrogen is also prohibited unless a plan, acceptable to the Executive Officer, is implemented that offsets the effects of such application on the underlying groundwater management zone.

15. Manure applied to non-CAFO related croplands[24] in any area that may affect a groundwater management zone that has TDS and nitrate-nitrogen assimilative capacity shall not exceed agronomic rates. In addition, the manure shall be incorporated into the soil immediately after application. For any application of manure to these croplands in excess of 12 dry tons per acre per year (or 17.5 tons per acre per year @ 33% moisture), an explanation of the type of crop and the number of times it is harvested per year shall also be included in the Annual Report (Form 3).

16. Manure originating from outside of the Chino Basin is prohibited from being applied to land within the Chino Basin.

17. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

18. The discharge of waste containing TDS and/or Nitrogen concentrations in excess of the underlying groundwater management zone objectives for those constituents is prohibited, unless adequately offset to the satisfaction of the Executive Officer.

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

The CWA Section 301(b) and federal regulations 40 CFR 122.44 require that TBELs be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically

[24] *For CAFO facilities that land apply manure, litter, or process wastewater to their croplands, see section VII.C.3(d) below for more details.*

achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop Effluent Limitations Guidelines and Standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 of the NPDES regulations authorize the use of Best Professional Judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR Section 125.3.

2. Applicable Technology-Based Effluent Limitations

The Order specifies technology-based effluent limitations as per 40 CFR 412.31. The effluent limitations guidelines do not require numeric effluent limits. Regional Board has determined that it is not feasible to establish numeric effluent limitations for pollutants in discharges from CAFOs at this time. Instead, the provisions of this Order require the development and implementation of EWMPs, consistent with the federal regulations, to control and abate the discharge of pollutants to surface waters and to achieve compliance utilizing BPT requirements and with applicable water quality standards.

Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged from the facility, provided all provisions of an Engineered Waste Management Plan (EWMP), accepted by the Executive Officer, are fully implemented, and:

a. The production area[25] is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event; and (40 CFR 412.31(a)(1)(i))

[25] *Production area means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste confinement areas.*

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b. The operations at the facility are conducted in accordance with the additional measures required by 40 CFR Section 412.37(a) and (b) with respect to inspection, corrective actions, monitoring and record keeping as specified in the Monitoring and Reporting Requirements of this Order (Attachment B) (40 CFR 412.31(a)(1)(ii)).

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR Section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, achieve applicable water quality objectives and criteria contained in state plans and policies, and meet water quality criteria contained in the CTR and NTR.

2. Applicable Water Quality-based Effluent Limitations (WQBELs)

a. Participation in the TMDL taskforces including the monitoring programs, workplan development and implementation activities either by each individual Discharger or by all the Dischargers represented by a trade association shall be considered in assessing compliance with the wasteload allocations in the TMDLs.

b. All Dischargers within the Lake Elsinore and Canyon Lake watershed shall comply with the Lake Elsinore and Canyon Lake Watershed Nutrient TMDL requirements specified in Section III.F.4. of the Order.

c. All Dischargers within the Santa Ana watershed shall comply with the Middle Santa Ana River Bacterial TMDL requirements including the time schedules, Section III.F.4. of the Order.

3. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The designated beneficial uses of the receiving waters are listed in Sections I.L. 21 and 22. The requirements specified in this Order are necessary to protect water quality standards in the receiving waters.

4. Determining the Need for WQBELs

NPDES permits for discharges to surface waters must meet all applicable provisions of sections 301 and 402 of the CWA. These provisions require

controls of pollutant discharges that utilize BAT and BCT to reduce pollutant and any more stringent controls necessary to meet water quality standards.

Since portions of this order will serve as an NPDES permit and will allow discharges to surface waters that are impaired, albeit only during extreme weather conditions, federal regulations require the order to include WQBELs for those discharges.

CAFOs may have multiple discharges from corrals and containment areas as a result of storm water inflow and seepage. Establishment of numeric effluent limitations for pollutants from CAFOs is not feasible because:

(1) the only discharges to surface waterbodies, or tributaries thereof, that are permitted are those from rainfall events that cause an overflow from facilities designed, constructed and operated to contain all process wastewater plus the runoff and the direct precipitation (that have been commingled with manure) from a 25-year, 24-hour rainfall event,

(2) due to the catastrophic nature of such events and the significant volume of runoff involved, treatment of these discharges to meet numeric effluent limitations would be impractical, and

(3) if the requirements specified in the order are met, water quality of the Region is not expected to degrade as a result of discharges authorized under this Order.

Therefore, the effluent limitations contained in this Order are narrative and include compliance with TMDL implementation plans. 40 CFR Section 122.44(k)(3) allows the use of BMPs to control and abate the discharge of pollutants when "numeric effluent limitations are infeasible; or the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA."

Regional Board has adopted TMDLs that address pollutants of concern in the two watersheds where the CAFOs are located: Middle Santa Ana (bacterial indicators) and Lake Elsinore and Canyon Lake (nutrients). These TMDLs include WLAs for CAFOs. Pursuant to the Middle Santa Ana River Bacterial indicator TMDLs CAFO compliance with the Dry Season WLA is to be achieved no later than December 2015.

Compliance with the Middle Santa Ana River Bacterial indicator TMDLs Wet Season WLA is to be achieved by December 2025 and compliance with the Lake Elsinore/Canyon Lake Nutrient TMDLs is to be achieved by December 2020. Since this Order will expire in December 2017, final effluent limits, based on those allocations that are to be achieved beyond this permit term are not included in this Order. However, control measures are to be implemented for all

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TMDLs. See Section IV.D. of this Fact Sheet for a more detailed discussion of these TMDLs.

The TMDLs require water quality monitoring to be performed and pollution reduction plans to be developed by specified dates. The TMDL tasks applicable to CAFOs have been incorporated into this Order. CAFO operators can choose to complete the tasks individually, or they may participate with the stakeholder group (TMDL Taskforces) to achieve compliance with the TMDLs.

5. WQBEL Calculations (Not Applicable)

6. Whole Effluent Toxicity (WET) (Not Applicable)

D. Final Effluent Limitations (Not Applicable)

E. Interim Effluent Limitations (Not Applicable)

F. Land Discharge Specifications

The discharge of waste containing TDS and/or Nitrogen concentrations in excess of the underlying groundwater management zone objectives for those constituents is prohibited, unless adequately offset to the satisfaction of the Executive Officer. Basin Plan Amendment, R8-2004-0001.

G. Reclamation Specifications (Not Applicable)

IX. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Order includes receiving water limitation for surface waters based on Basin Plan prohibitions and/or objectives.

B. Groundwater

The Order includes prohibitions on discharge of wastes from CAFOs that could adversely impact groundwaters based on Basin Plan prohibitions and/or objectives.

X. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR Section 122.48 requires all NPDES permits specify recording and reporting monitoring results. Sections 13267 and 13383 of the Water Code authorize the Regional Board to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment B), establishes monitoring and reporting requirements to implement federal and state requirements.

A. Influent Monitoring (Not Applicable)

B. Effluent Monitoring

To assure compliance with Permit limitations and requirements, the Dischargers are required to sample and analyze any discharge of wastes to surface waters for total dissolved solids (filterable residue), total coliform bacteria, E. coli, total nitrogen, total phosphorus and total suspended solids (40 CFR 122.44(i)).

C. Whole Effluent Toxicity Testing Requirements (Not Applicable)

D. Receiving Water Monitoring (Not Applicable)

E. Other Monitoring Requirements

This Order requires monitoring to determine compliance with the WLAs in the TMDLs. In addition, it also requires chemical analysis for manure.

XI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR Sections 122.41 and122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment A.

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR Part 123. The Regional Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, or adoption of new regulations by the State Board or Regional Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

This Order includes a requirement for the Dischargers to participate in special studies that may be required to determine compliance with the WLAs in the TMDLs.

3. Best Management Practices and Pollution Prevention

In compliance with the CWA and the California Code of Regulations, this Order prohibits discharges to any surface water bodies, or tributary thereof, unless rainfall

events cause an overflow of process wastewater from a facility designed, constructed and operated to contain all process wastewater plus the runoff and the direct precipitation (that have been commingled with manure) from a 25-year, 24-hour rainfall event (Title 27, Chapter 7, Subchapter 2, Article 1, Section 22562(a), California Code of Regulations and 40 CFR Part 412). To insure that compliance with these requirements is achieved, all CAFOs are required to develop and implement EWMPs. EWMPs are to be developed in accordance with the Guidelines for the Development of EWMP for CAFOs (Dairies and Related Facilities). It is intended that the guidelines can be revised, as necessary, by the Executive Officer. This Order authorizes the Executive Officer to make necessary revisions to the guidelines.

In March 1999, the United States Department of Agriculture (USDA) and the USEPA finalized their unified national strategy for AFOs. In general, the national strategy recommended the development of nutrient management plans (NMPs) that were intended to bring each CAFO into compliance with the requirements of the CWA and to minimize the impacts to groundwater and surface water from dairy wastes by the implementation of best management practices. In general, a NMP would assure that appropriate dairy wastewater facilities were developed, constructed and maintained to comply with the requirements of the CWA, and that the use and application of wastewater and manure (i.e. nutrient management) was managed to minimize impacts to groundwater and surface water. The most recent revisions to the NPDES and Effluent Limitation Guidelines and Standards for CAFO regulations, published on February 12, 2003, support this national strategy by requiring the CAFOs to develop and implement NMPs.

Consistent with the federal regulations, this Order requires CAFO operators who apply manure, litter, or process wastewater to croplands under their ownership or operational control to develop and fully implement a NMP in addition to the EWMPs. The NMP shall be prepared in accordance with 40 CFR 122.42(e)(1) and 40 CFR 412.4, and should follow the guidelines developed by Natural Resources Conservation Service (NRCS), Conservation Practices Standard 590. The discharger shall also comply with the recordkeeping requirements as described in 40 CFR 412.37(c). The NMP will be made available for public review for 30 days prior to its approval. If there is no objection after the reviewing period, the Executive Officer will approve the NMP and authorize the Discharger to start implementing the approved NMP within 90 days.

All Dischargers in the Region have complied with the requirements for developing and implementing EWMPs and NMPs.

4. Compliance Schedules

See Section VII.C.4 of the Order for a more detailed discussion of the compliance schedules.

5. Construction, Operation, and Maintenance Specifications

The Dischargers are required to use qualified professionals for the development and implementation of EWMPs and NMPs.

6. Special Provisions for Municipal Facilities (POTWs Only) (Not Applicable)

7. Other Special Provisions (Not Applicable)

XII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Santa Ana Region (Regional Board) is considering the renewal of waste discharge requirements (WDRs) that will serve as a General National Pollutant Discharge Elimination System (NPDES) permit for CAFOs. A draft of the General NPDES permit with all supporting documentation has been prepared and is available for public review and comments at:

http://www.waterboards.ca.gov/santaana/water_issues/programs/dairies/index.shtml

A. Notification of Interested Parties

The Regional Board has notified the Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through: posting of the Notice of Public Hearing at the Regional Water Board website: http://www.waterboards.ca.gov/santaana

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning this draft Permit. Comments should be submitted either in person or by mail to: Jawed Shami, Regional Water Quality Control Board, 3737 Main Street, Suite 500, Riverside, CA 92501. Comments can also be submitted by email at smayville@waterboards.ca.gov.

C. Public Workshop/Hearing

Status report on the development of a new dairy permit was discussed at the following Regional Board meeting:

Date: **October 26, 2012**
Time: **9:00am**
Location: **City Council Chambers of Loma Linda**
25541 Barton Road
Loma Linda, CA 92354

First public workshop was held at the following Regional Board meeting:

Date: **December 14, 2012**
Time: **9:00am**
Location: **City Council Chambers of Loma Linda**
25541 Barton Road
Loma Linda, CA 92354

Second public workshop scheduled for the following Regional Board meeting:

Date: **March 22, 2013**
Time: **9:00am**
Location: **City Council Chambers of Loma Linda**
25541 Barton Road
Loma Linda, CA 92354

All comments received during the public workshops and the comment period will be considered in the formulation of the final draft that would be presented to the Board for its consideration.

The Regional Board will hold a public hearing for consideration of the final draft Permit during its regular Board meeting on the following date and time and at the following location (to be determined)

Date: **June 07, 2013**
Time: **9:00 a.m.**
Location: **City Council Chambers**
City of Loma Linda
25541 Barton Road
Loma Linda, CA 92354

Interested persons are invited to attend the public workshop and the hearing. At the public workshop and the hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, the draft Permit and related documents. Oral testimony

will be heard; however, for accuracy of the record, important testimony should be in writing.

Additional workshops and/or public hearing may also be scheduled if the Regional Board, stakeholders or Regional Board staff determines a need for them. Please refer to the following website for most recent information regarding public workhops and public hearing. You may also contact Jawed Shami at 951-782-3288 or Jshami@waterboards.ca.gov.

Please be aware that dates and venues may also change. Our Web address is http://www.waterboards.ca.gov/santaana where you can access notices of public workshops and hearing and the board meeting agenda, including any changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the adopted permit. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

All documents related to this Order, any comments received, and other information are on file and may be inspected at the address above any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Board by calling (951) 782-4130.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the NPDES permit should contact the Regional Board, reference this Permit, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Jawed Shami at (951) 782-3288, email: jshami@waterboards.ca.gov or to Ed Kashak at (951) 782-3292; email: ekashak@waterboards.ca.gov.

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ATTACHMENT E - ACRONYMS AND ABBREVIATIONS

AB, Assembly Bill
AFO, Animal Feeding Operations

AgNMP, Agricultural Nutrient Management Plan

AGSEP, Agricultural Source Evaluation Plan

APU, Administrative Procedures Manual

ARS. Agricultural Research Services

BAT, Best Available Technology

BCT, Best Conventional Pollutant Control Technology

BMP, Best Management Practices

BOD, Biological Oxygen Demand

BPJ, Best Professional Judgment

BPT, Best Practicable Control Technology

CAFO, Concentrated Animal Feeding Operations

CCR, California Code of Regulations

CEQA, California Environmental Quality Act

CFR, Code of Federal Regulations

CIWQS, California Integrated Water Quality System

CNRP, Comprehensive Nutrient Reduction Plan

CTR, California Toxics Rule

CWA, Federal Clean Water Act

CWC, California Water Code

ELG, Effluent Limitations, Guidelines and Standards

EWMP, Engineered Waste Management Plan

GPS, Global Positioning System

IEUA, Inland Empire Utilities Agency

IRDMP, Integrated Regional Dairy Management Plan

MRP, Monitoring and Reporting Program

N/TDS, Nitrogen/Total Dissolved Solids

NMP, Nutrient Management Plan

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NPDES, National Pollutant Discharge Elimination System

NRCS, Natural Resources Conservation Service

NSPS, New Source Performance Standards

NTR, National Toxics Rule

OAL, Office of Administrative Law

OBMP, Optimum Basin Management Plan

PBMZ, Prado Basin Management Zone

POTW Publicly Owned Treatment Works

PTP, Pollutant Trading Plan

REC-1, Water Contact Recreation

RWD, Report of Waste Discharge

RWQCB, Regional Water Quality Control Board

SJBRCD, San Jacinto Basin Resource Conservation District

SMR, Self Monitoring Report

SWRCB, State Water Resources Control Board

TBEL, Technology Based Effluent Limitations

TDS, Total Dissolved Solids

TMDL, Total Maximum Daily Load

TSS, Total Suspended Solids

USC, United States Code

USDA, United States Department of Agriculture

USEPA, United States Environmental Protection Agency

WDR, Waste Discharge Requirements

WET, Whole Effluent Toxicity

WLA, Waste Load Allocations

WQBEL, Water Quality-Based Effluent Limitations

WRCAC, Western Riverside County Ag Coalition

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ATTACHMENT F

California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF TERMINATION

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE WASTES FROM CONCENTRATED ANIMAL FEEDING OPERATIONS (DAIRIES AND RELATED FACILITIES)
(Order No. R8-2013-0001, NPDES No. CAG018001)

PERMITTEE (*Person/Agency Responsible for the Discharge*)

Owner/Operator Name: _____

Mailing Address: _____
Street *City* *State* *ZIP*
Contact Person: _____ Phone (_____)_____

FACILITY (Physical Address)

Name: _____

Location: _____
Street *City* *State* *ZIP*
Contact Person: _____ Phone (_____)_____

BASIS FOR TERMINATION

1. **Facility Closed:** The facility is closed and all CAFO (Dairies and Related Facilities) activities terminated.

   Date of closure ____/____/____

2. **Facility Cleaning:**

   Have all ponds/wastewater holding lagoons been drained, scrapped, and solids removed? Yes____ No____

   Has all manure been removed from Corrals (please provide manure tracking manifests)? Yes____ No____

   Has all stockpiled manure been removed (please provide manure tracking manifests)? Yes____ No____

3. **New Facility Operator.** Is there a new operator at this facility? Yes____ No____

   Date facility was transferred to new operator ___/___/___

   Have you notified the new operator, in writing, of the NPDES Permit requirements? Yes____ No
   (If so, please provide a copy of notification)

   Have you provided a copy of EWMP and NMP (if applicable) to the new operator? Yes____ No____

   Please provide new operator's Name, Address, and Phone number_____

   _____

CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I believe that the information submitted is true, accurate and complete. I am also aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I also understand that the submittal of this Notice of Termination does not release the facility operator from liability for any violations of Order No. R8-2013-0001.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
PRINT OR TYPE NAME	PRINT OR TYPE NAME
TITLE AND DATE	TITLE AND DATE

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